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THE BIRDS OF TIERRA DEL FUEGO



NOSE PEAK FOREST

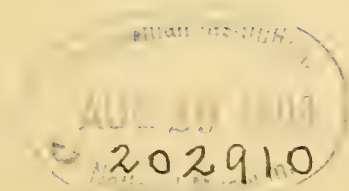
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THE
BIRDS
OF
TIERRA DEL FUEGO

BY
RICHARD CRAWSHAY
CAPTAIN
RESERVE OF OFFICERS : LATE INNISKILLING DRAGOONS

LONDON
BERNARD QUARITCH
1907

*Three Hundred Copies of this Work have been
printed, of which this is No. ⁴⁵.....*





TO THOSE
WHO FURTHERED ME
BY THE WAY

PREFACE

WHAT a land of mystery is Tierra del Fuego, even to its very name !

TIERRA
DEL
FUEGO

It was by accident, and not by design, that I came to realize this remote extreme of the Earth.

On my landing at Punta Arenas from the "Milton" in August, 1904, for the purpose of travel in Patagonia, that country proved weather-bound and impenetrable in one of the worst winters ever known. I had not reconciled myself to remaining where I was in idleness for two months, when a welcome alternative was offered me by Mr. Moritz Braun, Director-General Sociedad Explotadora de Tierra del Fuego, who suggested my seeing something of that island under exceptional facilities generously afforded by him.

Nothing loath, I embarked overnight in a little coasting steamer, the "Magallanes," proceeding thither ; and the following morning landed at the head of Useless Bay.

My first sight of the island was weird and unearthly indeed, coming as I did direct from the tropics and summer in the northern hemisphere, as it gradually unfolded itself in the slowly-coming blue-grey light of a winter's morning. Grey sky, grey sea, grey beach, the land white, and the black rocky crests of snow mountains standing out in threatening relief suspended between earth and heaven. What a study the sea-shore, here, where the two greatest oceans meet and sweep round the tail of the greatest continent ! What tremendous force of wind and water ! Piled up in such confusion as to make one stand aghast in contemplating it are masses of sea-weed with rocks attached, mussel and limpet shells, the bones or entire carcasses of whales—large and small, the carcasses of sea lions

and of guanacos, trunks of trees, and such evidence of the existence of man as a boat, a spar, an oar, a companion ladder, a ship's draught-board painted in black and white chequers on a stout piece of plank, and other wreckage.

What stirring associations have these winds and waves and shores with the great ocean explorers in days gone by—Magalhaens, Drake, Sarmiento, Richard Hawkins, Cavendish, Van Noort, Narborough, Anson, Byron, Bougainville, Wallis, Carteret, Cordova, B. G. and G. de Nodales, Cook, Weddell, King, Stokes, Fitzroy, Ross! How immortal are the memories of these men in Port Famine, Cape Peñas, Last Hope Inlet, Port Desire, Cape Froward, Cape Deceit, Good Success Bay, Fury Harbour, Useless Bay, Cape Providence, Devil's Basin, Bay of Mercy, Desolation Island—each telling its tale of origin, the details of which one may learn how to fill in from personal experience!

In spite of its terrific elements and inevitable privations, these old time voyagers were, for the most part, impressed with its being a good land.

Magalhaens, its discoverer, on the 21st of October, 1520, says, "There is not in all the world a more healthy country, or better strait." Drake experienced as great hardships and disasters as any, including the foundering of the "Marigold" with all hands under his eyes, yet concludes it "a place, no doubt, that lacketh nothing but a people to vse the same to the Creator's glory." Hawkins considered it "a goodly champion country."

Personally, in these latter days I was fascinated by Tierra del Fuego, from the time of first setting eyes on it that morning until I came to leave it six months later, after seeing winter go, and summer come, and go again. I doubt if there is another land on earth concerning which more misconception prevails—partly owing to its geographical position whence it is inferred to be so cold as to be uninhabitable; partly owing to its misleading name, pre-supposing abnormal heat, whereas originally this had reference to the fires of the natives along shore. Both



THE SEASHORE AT THE ENTRANCE TO ADMIRALTY SOUND
LOW TIDE

these opinions have repeatedly been expressed to me. Other people, again, arrive at its climate by analogy with corresponding latitudes in the northern hemisphere. In reality, it is far colder and far more inclement. At no time does the temperature ever rise to anything approaching summer-heat in the British Islands. It commonly freezes at midsummer. Degrees of temperature, however, do not convey the climate. There is the wind from the everlasting snows and glaciers, always blowing with terrific force and with cutting keenness, yet how invigorating and fragrant with forest and peat and seaweed!

Drake thus describes the weather in 1578:—"The mountaines being verry high, and som reaching into the frozen region, did euey one send out their seuerall windes; somtymes behind us, to send us on our way; somtymes on the starrboarde side, to driue us to the larborde, and on the contrary; somtymes right against us, to driue us farther back in an houre than wee could recouer againe in many; but of all others this was the worst, that sometyme two or three of these winds would come together, and meet as it were in one body, whose forces being becom one, did so violently fall into the sea, whirleing, or as the Spanyard saith, with a tornado, that they would pierce into the very bowells of the sea, and make it swell upwards on every syde; the hollownes they made in the water, and the winds breaking out againe, did take the swelling banks so raised into the ayer, and being dispersed abroad, it rann downe againe a mighty raine. Neither may I omit the grisly sight of the cold and frozen mountains rearing their heads, yea, the greatest part of their bodies, into the cold and frozen region, where the power of the reflection of the sonn neuer reacheth to dissolve the ise and snow; so that the ise and snow hang about the spires of the mountains circularwise, as it were regions by degrees, one above another, and one exceeding another in breadth in a wonderful order. From these hills distilled so sharpe a breath, that it seemed to enter into the bowells of nature, to the great discomfort of the lives of our men."

Stokes of the "Beagle" alludes to the weather as "that in which the soul of man dies in him"—pathetically enough, almost his last words before committing suicide under stress of all he had to undergo.

How difficult is navigation in these waters may be realized from the time taken by some of the early voyagers in making the Bay of Mercy from Cape Froward, a distance of 200 miles—Byron, in 1764, 42 days; Wallis and Carteret, in 1766, 82 and 84 days respectively; Bougainville, in 1768, 40 days; Stokes, in 1827, 30 days. Of Cape Froward, Stokes thus records his experience:—"To double it, and gain an anchorage under Cape Holland, certainly cost the 'Beagle' as tough a sixteen hours' beat as I have ever witnessed: we made thirty one tacks, which, with the squalls, kept us constantly on the alert, and scarcely allowed the crew to have the ropes out of their hands throughout the day."

But, of course, the region of Cape Horn is notorious for being the most storm-ridden on earth.

However rigorous, it is healthy, as Sir John Narborough constantly testifies in 1670. "A man hath an excellent stomach here," he says; "I can eat Foxes and Kites as savourily as if it were Mutton. Nothing comes amiss to our stomachs."

For weaklings and for those who cling to luxury it is no country. To the robust, reasonably optimistic, and open-minded, I commend it in all confidence—above all, to those who would realize the Earth as God created Her.

In Tierra del Fuego, man is face to face with Nature and Her greatest forces untamed and unrestrained, to an extent perhaps unequalled anywhere else in the world. Well has Darwin said:—"The inanimate works of Nature—rock, ice, snow, wind, and water, all warring with each other, yet combined against man—here reign in absolute sovereignty." Here, if anywhere, is the Mystery of Life likely to reveal Itself to man. "Nothing meets the eye but only God." Alone, with none but these mighty voices of the Creator thundering in his



THE SUMMIT OF THE SIERRA CARMEN SYLVA

ears, and His work being carried on under his eyes, he cannot but live always as much in realization of things unseen as of things seen :—

“How all the moving phantasies of things,
And all our visual notions, shadow like,
Half hide, half show, that All-sustaining One,
Whose bibles are the leaves of lowly flowers,
And the calm strength of mountains : rippling lakes ;
And the irregular howl of stormful seas,
Soft slumbering lights of even and of morn,
And the unfolding of the star-lit gloom.”

The geology of Tierra del Fuego is an impressive study. According to Darwin, than whom no better authority has arisen in all this time, the northern and eastern portion is composed of horizontal tertiary strata, fringed by low, irregular, extensive plains belonging to the boulder formation, and made up of coarse unstratified masses, sometimes associated with fine, laminated, muddy sandstones. Alluvial gold occurs freely ; also lignitic coal at Cheena Creek and on the south coast. In San Sebastian Bay, the cliffs are composed of fine sandstones often in curvilinear layers, including hard concretions of calcareous sandstone, and layers of gravel. Towards the interior of the island, the tertiary formation is bounded by a broad mountainous band of clay slate. The rock forming the summit of Nose Peak is determined by Dr. J. S. Flett as a fine, highly felspathic grit, yellow in colour when weathered and soft from the abundance of felspar. It consists of quartz, various felspar, fragments of slate or shale, biotite decomposing to chlorite, and a minutely fragmental interstitial or cementing material. Metamorphic schists, granite, and various trappean rocks compose the western and broken portion. No recent volcanic district occurs anywhere. The clay slate is generally fissile, sometimes siliceous or ferruginous with veins of quartz and calcareous spar ; often assuming, especially on the loftier mountains, an altered felspathic character, passing into felspathic porphyry ;

occasionally associated with breccia and grauwacke. At Good Success Bay, there is a little intercalated black crystalline limestone. In many parts the clay slate is broken by dikes and by great masses of greenstone, often highly hornblendic. Near the dikes the slate generally becomes paler-coloured, harder, less fissile, of a felspathic nature, and passes into a porphyry or greenstone: in one case, however, it becomes more fissile, of a red colour, and contains minute scales of mica, which are absent in the unaltered rock. Towards its south-west boundary, the clay-slate becomes much altered and felspathic. West of the bifurcation of the Beagle Channel, the slate-formation, instead of becoming, as in the more southern parts of the island, felspathic, and associated with trappean or old volcanic rocks, passes by alterations into a great underlying mass of fine gneiss and glossy clay-slate, which at no great distance is succeeded by a grand formation of mica-slate containing garnets. The folia of these metamorphic schists strike parallel to the cleavage-planes of the clay-slate, which have a very uniform direction over the whole of this part of the country: the folia, however, are undulatory and tortuous, whilst the cleavage-laminæ of the slate are straight. The Darwin Range is composed of these schists. On the south-western side of the northern arm of the Beagle Channel, the clay-slate has its strata dipping from this great mountain chain, so that the metamorphic schists here form a ridge bordered on each side by clay-slate. Further north, to the west of this great range there is no clay-slate, but only gneiss, mica, and hornblendic slates, resting on great barren hills of true granite, and forming a tract about sixty miles in width. Westward of these rocks, the outermost islands are of trappean formation, which, together with granite, seem chiefly to prevail along the western coast as far north as the entrance to the Strait of Magellan. In both arms of the Beagle Channel, there is a peculiar plutonic rock deserving of especial notice, namely, a granulo-crystalline mixture of white albite, black hornblende, and more or less of brown mica, but



A RIVER POOL IN THE FOREST
SHOWING TIMBER BARRAGE

without any quartz. This occurs in large masses, closely resembling in external form granite or syenite, and is interesting from its perfect similarity to andesite which forms the great injected axes of the Cordillera of Chili.

The stratification of the clay-slate is generally very obscure, whereas the cleavage is remarkably well defined, striking in the extreme east of the island W. and E. and even W.S.W. and E.N.E.; over the main portion, including the Darwin Range, W.N.W. and E.S.E.; in the central and western portion of the Strait of Magellan N.W. and S.E.; and north of the Strait nearly N. and S.

Of the islands to the extreme south, it is interesting to note that on Wollaston Island slate and grauwacke can be distinctly traced passing into felspathic rocks and greenstones, including iron pyrites and epidote, but still retaining traces of cleavage with the usual strike and dip. One such metamorphosed mass is transversed by large vein-like masses of a beautiful mixture of green epidote, garnets, and white calcareous spar. On the northern portion of this same island, there are various ancient submarine volcanic rocks, consisting of amygdaloids with dark bole and agate,—of basalt with decomposed olivine,—of compact lava with glassy felspar,—and of a coarse conglomerate of red scoriæ, parts being amygdaloidal with carbonate of lime. The southern part of Wollaston Island and the whole of Hermite and Horn Islands are formed of cones of greenstone.

The external features of Tierra del Fuego are exceedingly varied. There are lowland flats with vast marshes and lakes more or less brackish, scrub-covered downs, bleak black peaty moors, practically impenetrable forests, and regions of everlasting snow probably never trodden by man. In the coast-line, there is also much diversity. This may be low shingly beach with the land dead flat behind it, or bare perpendicular cliff washed at foot by the sea, or solid jagged rock overgrown to high-tide mark with impermeable thorn scrub, or else precipitous mountain covered with forest or glacier to the very ocean.

Early voyagers record hardly any definite impressions of the island, even as seen from the sea.

Describing the Strait, Drake says :—" The mountaines arise with such tops and spires into the aire, and of so rare a height, as they may well be accounted amongst the wonders of the world; enuironed, as it were, with many regions of congealed clouds and frozen meteors, whereby they are continually fed and increased, both in height and bignes, from time to time, retaining that which they haue once received, being little againe diminished by the heate of the sun, as being so farre from reflexion and so nigh the cold and frozen region."

Cook says of the island's aspect to westward, in summer :—" This is the most desolate coast I ever saw. It seems entirely composed of rock mountains without the least appearance of vegetation. These mountains terminate in horrible precipices, whose craggy summits spire up to a vast height; so that hardly anything in nature can appear with a more barren and savage aspect, than the whole of this country. The inland mountains were covered with snow, but those on the sea-coast were not."

Down to the present time, the Survey of the "Adventure" and "Beagle" constitutes the most reliable and complete information on this region at all generally accessible. King's descriptions of the scenery are particularly powerful and vivid.

Of Gabriel Channel, he says :—" Mount Buckland is a tall obelisk-like hill, terminating in a sharp needle-point, and lifting its head above a chaotic mass of '*reliquiæ diluvianæ*,' covered with perpetual snow, by the melting of which an enormous glacier on the leeward, or north-eastern side, has been gradually formed. This icy domain is twelve or fourteen miles long, feeding, in the intermediate space, many magnificent cascades, which, for number and height, are not perhaps to be exceeded in an equal space of any part of the world. Within an extent of nine or ten miles, there are upwards of a hundred and fifty waterfalls, dashing into the Channel





THE PAMPAS OF THE LOWLANDS

THE HAUNT OF GEOSITTA CUNICULARIA AND CINCLODES FUSCUS

from a height of fifteen hundred or two thousand feet. The course of many is concealed, at first, by intervening trees, and, when half way down the descent, they burst upon the view, leaping, as it were, out of the wood. Some unite as they fall, and together are precipitated into the sea, in a cloud of foam ; so varied, indeed, are the forms of these cascades, and so great their contrast with the dark foliage of the trees which thickly cover the sides of the mountain, that it is impossible adequately to describe the scene. I have met with nothing exceeding the picturesque grandeur of this part of the Strait."

Again, of Ainsworth Harbour :—"The bottom of the port is formed by an immense glacier, from which during the night, large masses broke off and fell into the sea with a loud crash. At high tide the sea water undermines, by thawing, large masses of ice, which, when the tide falls, want support, and, consequently, break off bringing with them huge fragments of the glacier, and falling into the still basin with a noise like thunder."

Mount Sarmiento is thus described by Graves :—"Rising abruptly from the sea, to a height of about 7,000 feet, it terminates in two sharp peaks, which seem absolutely in the sky : so lofty does the mountain appear when you are close to its base. Two thirds of the height are covered with snow ; and two enormous glaciers descend into the deep blue waters of the sea beneath. When the sun shines, it is a most brilliant and magnificent sight."

From Port Famine, King mentions that "during 190 days, this wonderful mountain was only seen on twenty-five, and during seven days only was it constantly visible. On the remaining eighteen, portions only were seen, and those but for a very few hours at a time."

Yet one more description will I quote, that of the scenery at night from Devil Island, in Beagle Channel, by Fitzroy :—"Between some of the mountains the ice extended so widely as to form immense glaciers, which were faced towards the water by lofty cliffs. During a beautifully fine and still night, the view from our fireside in this narrow channel, was most striking,

though confined. Thickly-wooded and very steep mountains shut us in on all three sides, and opposite, distant only a few miles, rose an immense barrier of snow-covered mountains, on which the moon was shining brightly. The water between was so glassy that their outline might be distinctly traced in it: but a death-like stillness was sometimes broken by masses of ice falling from the opposite glaciers, which crashed, and reverberated around—like eruptions of a distant volcano.”

As men who had seen the world, the “tremendous and astonishing glaciers” of this region impressed the “Adventure” and “Beagle” Survey as one of its greatest wonders.

FLORA

For present purposes, the flora may be divided into two groups—that of the open parts of the island and that of the forest.*

The principal growths met with in the open are a bush with sage-green leaves and white Marguerite-like flowers (*Chiliodendron amelloideum*); the Box-leaved Barberry (*Berberis buxifolia*); the Black Currant (*Ribes magellanicum*); the Crowberry (*Empetrum nigrum*); the Arbutus-like prickly-leaved *Pernettya mucronata*; the delicately beautiful *P. serpyllifolia*; and *Azorella* growing in massive vivid-green mounds.

Of these, the most important is the Barberry—the Calafate as it is locally known—though not nearly so abundant as *Chiliodendron*, which completely clothes the hill-sides and flats for vast areas. To the Calafate Drake refers, as a “small berry with us named currants, or as the comon sort call them small raisins, growing wonderfull plety,” in an island, “where the Atlanticke Ocean and the South Sea meete in

* It has only been by the grace of numerous distinguished botanists that I have been able to arrive at many of these names. From the staff of the Royal Gardens, Kew, I have received the most generous help, which I take this opportunity of associating with Colonel D. Prain; Mr. W. B. Hemsley; Dr. Otto Stapf; Mr. G. Masee; Mr. T. A. Sprague; Mr. A. D. Cotton; and Mr. C. H. Wright. I have also received much help from the staff of the British Museum of Natural History—especially Dr. A. B. Rendle; Mr. A. Jepp; and Mr. James Britten.—R. C.



IN THE SIERRA CARMEN SYLVA

a most large and free scope." On the bare wind-swept flats the Calafate grows the merest stunted bush, sprawling along the ground hardly a foot in height ; but, in sheltered places in valleys and on the outskirts of forest, it develops into a tree as large as the White Thorn (*Crataegus oxyacantha*). It is the most uncompromising mass of thorns imaginable, yet is the most beloved of all trees. In spring, its rich yellow sweet-smelling blossoms altogether pervade the air ; in summer its generous black-grape-coloured fruit is a blessing to man and beast and bird.

"Quien come Calafate,
Vuelve por mas."

The Black Currant, from which one is apt to look for so much on hearing its name, is a disappointment. The fruit never properly ripens. It is hard, juiceless, and insipid. I have eaten it on occasion, though never with any sense of satisfaction. Certain birds, however, appreciate it—in particular the thrush.

The Crowberry is the principal growth of the moors, where it takes the place of Heather. Here the berries are bright red, whereas in the British Isles these are black. The leaves are the food of the grouse-like *Attagis*.

Amongst the more noticeable Flowers are the Pink Primula (*P. magellanica*), about the first to show growth in spring ; the Gladiolus-like *Sisyrinchium filifolium* with clusters of delicate bell-shaped sweet-smelling pink-and-maroon blossoms suspended by the merest threads ; a large single-headed Calceolaria (*C. darwinii*) ; the Mauve Pea (*Lathyrus magellanicus*) commonly found along the cliffs to the south of Useless Bay ; and in the beds of streams a luxuriant plant with white Daisy-like flowers growing in a cluster on a massive stalk (*Senecio smithii*). On open grassland anyway sheltered, the Buttercup (*Ranunculus*) becomes a veritable cloth of gold. *Cerastium arvense* occurs in patches of dazzling whiteness. Celery (*Apium*) is exceedingly plentiful, also the Dandelion (*Taraxacum*) ; and both are largely eaten by the white settlers.

In Ferns, Bracken is absent ; but, instead of it, *Lomaria alpina* completely covers the downs in places. Owing to the frost, like many other things, it becomes a brick-red.

Noticeable Lichens are *Sticta*; *Parmelia lugubris*; *Ramalina scopulorum*; and *Usnea* of shorter growth than in the forest.

Amongst the Grasses, there are such familiar and widely-distributed forms as *Alopecurus alpinus*, *Phleum alpinum*, *Poa* of several species including *P. pratensis*, and *Aira* of several species including *A. flexuosa*. The Tussock (*Dactylis cæspitosa*) is the most remarkable of all. Other Grasses are *Arundo pilosa*; *Hierochloe magellanica*; *Avena leptostachys*; *Agrostis* of many species; *Trisetum* of several species; *Bromus*; *Hordeum*; *Triticum elymus*; and *Festuca* of many species large and small, growing in paint-brush-like tufts, every head carrying a needle-point of varying degrees of fineness—*F. gracillima* being perhaps the finest of all.

No mention of the wonderful Tussock Grass will suffice without some account of its growth. "To all who know Grasses only in the pastures of England," Sir Joseph Hooker says, "patches of Tussock resemble nothing so much as groves of small low Palm-trees. This similarity arises from the matted roots of the individual plants springing in cylindrical masses, always separated down to the very base, and throwing out a waving head of foliage from each summit. The effect in walking through a large Tussock grove is very singular, from the uniformity in height of these masses, and the narrow spaces left between them, which form an effectual labyrinth; leaves and sky are all that can be seen overhead, and their curious boles of roots and decayed vegetable matter on both sides, before and behind; except now and then, where a penguin peeps forth from his hole, or the traveller stumbles over a huge sea-lion, stretched along the ground, blocking up his path. The peculiar mode of growth of this Grass enables it to thrive in pure sand, and near the sea, where it has the benefit of an atmosphere loaded with moisture, of soil enriched by decaying sea-weeds, of manure, which is composed of an abundant supply of animal matter in



AN ANTARCTIC BEECH
LIFE OUT OF DEATH

the form of guano, and of the excrements of various birds, who deposit their eggs, rear their young, and find a habitation amongst the groves of Tussock. Its general locality is on the edges of those peat-bogs which approach the shore, where it contributes considerably to the formation of peat. Though not universal along the coast of these islands, the quantity is still prodigious, for it is always a gregarious Grass, extending in patches sometimes for nearly a mile, but seldom seen except within the influence of the sea air. This predilection for the ocean does not arise from an incapacity to grow and thrive except close to the salt water, but because other plants, not suited to the sea-shore, already cover the ground in more inland localities, and prevail over it; I have seen the Tussock on inaccessible cliffs in the interior, having been brought there by the birds and afterwards manured by them; and when cultivated, it thrives both in the Falklands and in England, far from the sea."

The average height of the Tussock Grass is estimated by Dr. Cunningham, of the "Nassau" Survey, as between ten and twelve feet, and the mass of roots belonging to each from a foot to a foot and a half in height by two to three feet in diameter.

Live stock are particularly partial to this Grass. The "sweet nutty-flavoured roots" are food even for man.

Of the Fungi, the most conspicuous are the Common Field Mushroom (*Agaricus campestris*) and the Giant Puffball (*Lycoperdon giganteum*).

The forest is composed of two species of Beech, and Winter's Bark (*Drimys winteri*); with undergrowth of Holly-leaved Barberry (*Berberis ilicifolia*), Black Currant, and, on the outskirts, large and luxuriant clumps of Fuchsia (*Fuchsia magellanica*) almost overhanging the sea.

Fagus antarctica and *F. betuloides* are the two Beeches, the former deciduous, the latter evergreen. It is curious to observe how these two trees occur in their several belts, or grow together in similar conditions, with no apparent reason governing such distribution.

The Antarctic Beech has extraordinary powers of adapting itself to varied conditions of life, and grows up to the greater altitude of the two. In sheltered positions, it attains some five feet in diameter and perhaps a height of eighty feet. On exposed slopes, it becomes a tangled scrub, so dense as to be impermeable; so that the only method of negotiating it is by scrambling over, every now and then falling through. On mountain tops, it dwindles to the merest plant sprawling along the ground. King mentions a plant on Kater's Peak, which "though not more than two inches high, occupied a space of four or five feet in diameter."

The Evergreen Beech is of straighter growth, with smoother bark. In Nose Peak forest, I saw many trees four feet six inches in diameter and about one hundred feet high. Of this Beech, King says:—"Trees of three feet in diameter are abundant; of four feet there are many; and there is one tree (perhaps the very same noticed by Commodore Byron) which measures seven feet in diameter for seventeen feet above the roots, and then divides into three large branches, each of which is three feet through."

As to the relative sizes of these two Beeches, the widest divergence of opinion prevails as the result of individual experience. In solution of this, Colonel D. Prain suggests that "though both species grow together throughout the region where they occur, one species may in particular localities attain larger dimensions than the other, while again in different localities their sizes are reversed."

Winter's Bark is recognizable by its smooth greyish-green bark and Magnolia-like leaves. I did not observe this tree any distance inland, nor anywhere approaching the size recorded by Captain Stokes from Chili. At Port Xavier, a tree felled by his woodcutters measured eighty-seven feet in length and three feet five inches in circumference. The peculiar properties of *Drimys winteri* are mentioned by several of the early voyagers. Hawkins says:—"This Tree carrieth his fruit in clusters like

a Haw-thorne, but that it is greene, each being of the bignesse of a Pepper-corne, and euery of them contayning within four or five granes, twice as bigge as a Musterd-seed, which broken are white within, as the good Pepper, and bite much like it, but hotter. The barke of this Tree hath savour of all kinde of Spices together, most comfortable to the Stomack, and held to be better than any Spice whatsoever."

The Holly-leaved Barberry grows so densely in places as to make parts of the forest absolutely impenetrable. Its thorns are many times more formidable than those of *Berberis buxifolia*.

Parasitic on trees is the Mistletoe-like *Myzodendron punctulatum*. A hoary grey Lichen (*Usnea*), streaming in long festoons, imparts to the forest a truly eerie and ghost-like appearance.

Fungi are one of the wonders of the forest. Mr. George Masee, who has himself studied this flora in Tierra del Fuego, considers the Tree Morels especially interesting. *Cyttaria darwinii*, *C. berterii*, and *C. hookeri*, he says, grow on living branches of different species of Beech (*Fagus*); and are also met with on species of *Fagus* in Tasmania and New Zealand. Everywhere these Fungi are a staple article of food to the aboriginals. *Polyporus fuegianus* forms large bracket-like outgrowths on the trunks of trees; and *Fistulina antarctica*—a close ally of the British Beefsteak Fungus (*F. hepatica*), which it is said to surpass in delicacy of flavour—also occurs abundantly in similar situations.

There are not many Flowers. The most beautiful is a white Snowdrop-like Orchis (*Codonorchis lessonii*), with a faint sweet smell. The Yellow Violet (*Viola maculata*) is exceedingly pretty, but scentless. What interested me more than all was the tiny *Rubus geoides*, growing flat on Moss-covered boulders.

Some four species of Ferns occur:—a variety of the widely distributed very variable *Aspidium aculeatum*; *Asplenium magellanicum*; *Hymenophyllum wilsoni*; and *Lomaria*.

At the lower altitudes, Mosses—principally *Bartramia*—completely cover everything like a heavy fall of snow, so

that, except for large tree trunks, it is impossible to see what lies beneath. Clambering over these, long since decayed and become the consistency of soft mould, it is a common thing to sink in up to the hips. "No soil is to be discovered," Lieutenant Skyring very aptly remarks; "the shrubs, and even the trees which are of large growth, rise out of Moss, or decomposed vegetable substances."

The Algæ include the gigantic *Macrocystis pyrifera*, not only the greatest of all Seaweeds, but the longest growth known in all the vegetable kingdom. It attains a length of many hundred feet, growing from the bottom in deep water and trailing along the surface. Other very large Seaweeds of this region are *Durvillea* and *Lessonia*. Red Seaweeds are represented by several species of *Delesseria* and *Nitophyllum*. The green Lettuce-like widely-distributed *Ulva latissima*, of course, occurs.

Of *Macrocystis* Sir Joseph Hooker says, as the result of his observations on the "Erebus" and "Terror" Antarctic Expedition:—"In the Falkland Islands, Cape Horn, and Kerguelen's Land, where all the harbours are so belted with its masses that a boat can hardly be forced through, it generally rises from eight to twelve fathom water, and the fronds extend upwards of one hundred feet upon the surface. We seldom, however, had opportunities of measuring the largest specimens, though washed up entire on the shore; for on the outer coasts of the Falkland Islands, where the beach is lined for miles with entangled cables of *Macrocystis*, much thicker than the human body, and twined of innumerable strands of stems coiled together by the rolling action of the surf, no one succeeded in unravelling from the mass any one piece upwards of seventy or eighty feet long; as well might we attempt to ascertain the length of hemp fibre by unlaying a cable." The greatest length arrived at by the expedition was about seven hundred feet; but, far larger growths than this were observed at an earlier period, and not measured for want of opportunity—nor were these thought anything extraordinary, in view of the report that *Macrocystis*

was known to attain a length of upwards of a thousand feet, which Sir Joseph Hooker does not seem inclined to question, but rather confirms, for he expresses the opinion that this plant is of indefinite growth.

No great fossil animals have been discovered in Tierra del Fuego, although such should exist in continuation of those occurring in the Patagonian Pampas—such as *Megatherium*, *Scelidotherium*, *Myiodon*, *Glyptodon*, *Hippidium*, *Macrauchenia*, *Toxodon*, *Nesodon*, *Megamys*—so abundantly, that Darwin states his belief no deep trench can be cut in a line across these without intersecting some such remains.

Living Mammals are extraordinarily few.

Man is represented by the Onas in the north and east, the Yaghans in the south, and the Alakalufs in the west. It seems to be a prevailing belief that the native races of Tierra del Fuego are the most degraded of mankind—due probably to voyagers to these regions having confused the Onas with the canoe tribes. However much such an imputation may apply to the latter, it cannot with any justice include the Onas; for they are a magnificent race, little inferior in stature to the Tehuelchs of Patagonia, who are the giants of all mankind; and like them, they live entirely by the chase on foot with bows and arrows, where the Tehuelchs are horsemen using the bolas. If the arts of life of the Onas are primitive, it must be remembered that for unknown ages they have been a people cut off from intercourse with others. Judged from the point of view of the land they inhabit, they are perfect. Living a nomadic existence in these terrific elements, with only a screen of skins to windward where they camp for the time being, they are able to supply all their needs in food and clothing by the chase and by the natural produce of the land, and at that maintain about the finest physique seen in Man. Such weapons as they possess are the best possible to them—mighty bows strung with Guanaco sinew, arrows made from the forest barberry with heads marvellously chipped from glass. For tools they rely on Nature

at first hand—stones for anvils and hammers, shells for knives and rasps and pliers, shoulder blades of the Guanaco for spades, pumiceous tuffs and hone-shaped limestones for grinding purposes. Fire they obtain from pyrites, with dried *Lycoperdon* for tinder.

Shortly after my arrival at Useless Bay Settlement, when skinning a bird one morning, I saw an Ona for the first time. Conscious somehow of a strange presence, I looked round and beheld a gigantic form robed in shaggy furs from head to foot—erect, motionless, silent—regarding me with a gaze so impressive and intense, that as I encountered it, my whole being experienced a shock. A Man indeed! What an absolute reality in every respect! Every character essential to an entirely independent existence he possesses in striking degree, enabling him to live and thrive in a land where Man of another race in similar circumstance would die outright. A frame physically and constitutionally as strong as can be, resource in any emergency, determination, courage recking nothing of cost to life or limb in the achievement of purpose, untiring patience, endurance to the end, intelligence the outcome of instinct and reason so combined as to place him on equal terms alike with Man and the lower creation—all these are evident in him at a glance. What he has gone through in life is splendidly testified to in his person, whether from exposure to the elements, or in warring with his own kind—even also to a broken arm from the bullet of White Men, who afterwards dragged him from their horses with the lazo and left him for dead. But, what impresses one most of all is his magnificent dignity and reserve—so natural, as to be impossible of compromise. That stern, calm, thoughtful, deeply-lined, awfully solemn face—so full of expression of all that is greatest and best in Man, yet manifesting nothing evil—will dwell with me to my dying day.

“The solitary savage feels silently, and acutely,” says Washington Irving in his generous tribute to the Red Man. “His sensibilities are not diffused over so wide a surface as those

of the White Man, but they run in steadier and deeper channels. His pride, his affections, his superstitions, are all directed towards few objects. Free from the restraints and requirements of polished life, and in a great degree a solitary and independent being, he obeys the impulses of his inclinations on the dictates of his judgment; and thus the attributes of his nature, being freely indulged, grow singly great and striking."

To the disgrace of this age, the Onas, the evolution of their land from time unknown, have been deliberately all-but-exterminated within the space of a few years, and that quite recently, by fellow Men from over the seas? Of Man it is said that he is the highest and lowest being in creation. Can it be said of those responsible for this crime, as is pleaded for the Red Man by the Poet of the Northland, that:—

"Every human heart is human,
In even savage bosoms
There are longings, yearnings, strivings,
For the good they comprehend not,
Feeble and helpless,
Groping blindly in the darkness,
They touch God's right hand"?

I appeal to all able to do anything, to do what is possible for the preservation of those Onas who remain.

In the fauna of Tierra del Fuego—Mammals especially—it is remarkable that, although forms occurring in the island are met with almost—if not quite—without exception on the mainland, the converse is by no means the case. The Puma (*Felis concolor*); Pampas Cat (*F. pajeros*); Skunk (*Conepatus*); Grey Fox (*Canis griseus*); Huemul (*Xenelaphus bisulcus*); Viscacha (*Lagostomus trichodactylus*); the *Caviidæ*—in *Cavia* and *Dolichotis*; and Armadillo (*Dasypus*) are absent.

The largest land animal is the Guanaco (*Auchenia huanacus*), until lately very plentiful, now—like the Onas—nearly extinct.

The Guanaco is of the Camel family, and to the Camel bears a closer resemblance than to any other animal; although of

lighter build and more graceful, reminding one much of a Deer; and also of a Sheep, in the shape and carriage of its ears and in its cinnamon-brown and snow-white fleece of the finest wool. What the Bison was to the Red Man of North America, the Guanaco is to the Ona of Tierra del Fuego and to the Tehuelch of Patagonia—food, clothing, and equipment. Short of Man, as a feature in the landscape and for its remarkable personality, this creature stands out above all others. No hill-top commanding the surrounding country seems complete without a Guanaco sentry, of which perhaps only the head and neck are visible, standing in relief against the sky-line. Often does one hear the weird quavering neigh, borne to one up or down or across the wind, without being able to distinguish the familiar form. If directly approached, Guanacos usually make off in headlong flight. If, however, no notice be taken of them, they remain where they are; or, impelled by their extraordinary curiosity, come to one, and follow one in a parallel line for miles, within close rifle shot, lolloping along at their easy graceful canter, and indulging in those grotesque antics for which these creatures are notorious.

The Guanaco is in appearance the very personification of gentleness—with its innocent-looking form possessed of no apparent means of offence, its lustrous Gazelle-like eye, and its soft woolly fleece. No animal could be more deceptive. In a wild state amongst its own kind, and in captivity—no matter how forbearingly treated—it is the least tractable of any creature known to me. A pair of wild Guanacos can often be seen or heard engaged in desperate combat, biting and tearing and rolling over one another on the ground, uttering their gurgling bubbling cries of rage. Of a pair so engaged, I shot one whose tail had then been bitten off in the encounter. In confinement, the Guanaco charges one with his chest or rears up on his hind legs to strike one with his fore-feet, besides biting and spitting up the contents of the stomach.

There is, then, a gigantic Fox (*Canis magellanicus*), as large

almost as the Wolf of the northern hemisphere, destructive to Sheep, and a very bold robber in camps. Another Carnivore is the Otter (*Lutra platensis*). The Sea Lion or Eared Seal (*Otaria jubata*) is abundant on the coast, and the carcasses are often seen on the beach. A Bat (*Vesperugo magellanicus*) is sometimes, though very rarely, met with. Quite one of the features of the land is the Mole-like *Ctenomys magellanicus*, which honeycombs the ground in the open country to such an extent as to make it a burden to ride or walk. It is remarkable that where Sheep have been herded in any numbers, this animal has been trampled out of existence. Another Rodent (*Rhithrodon*) is still plentiful on the flats. In the seaweed on the sea-shore I obtained a small buff-coloured Mouse (*Akodon*). Whales are plentiful in these waters, from those of the largest size known to some of the smallest. On the beach in Useless Bay I saw the remains of one—the Blue Whale (*Balænoptera sibbaldii*), Sir William Turner suggests—which, when entire, measured eighty-seven feet in length. I saw another of similar size in San Sebastian Bay. By white settlers the vertebræ are frequently utilized as stools. In Whiteside Channel, I saw Whales blowing in all directions. In more than usually stormy weather, I have seen them in Useless Bay. Amongst the smaller species is a Black Dolphin (*Globicephalus*), numbers of which may sometimes be seen dead along shore, in places three or four together. Large creatures as they are—some ten or twelve feet long—their wholesale destruction, due to no apparent cause, presents an extraordinary spectacle.

Birds are the most important fauna of all, although the majority are only summer visitors—even in the case of Geese and Ducks. Orders represented are :—Accipitres, Striges, Psittaci, Pici, Passeres, Herodiones, Anseres, Ralli, Limicolæ, Tubinares, Steganopodes, Pygopodes, Sphenisci. The most numerous in species are Passeres, Limicolæ, and Anseres. Psittaci and Pici are represented only by a single member. Prominent mainland orders in Tinami and Struthiones do not occur.

Reptiles appear to have no other representative than a little green Lizard (*Liolaemus magellanicus*).

Amphibia, as far as I am aware, are totally absent.

Of the Fishes, Dr. A. Günther observes that :—" In Marine forms, many representatives of northern genera reappear : such as the Spiny Dog Fish (*Acanthias vulgaris*), species of *Raja*, *Sebastes*, *Agonus*, *Mugil*, *Lycodes*, *Merluccius*, *Myxine*; while the northern Cottoids are replaced by forms similar in outward appearance, but belonging to different families, namely *Aphritis*, *Eleginus*, *Chænichthys*, *Bovichthys*, *Dissostichus*, *Notothenia*, *Harpagifer*. Other genera peculiar to this fauna are a Ray (*Psammobatis*), *Maynea* allied to *Lycodes*, and one of Flatfishes (*Pleuronectidæ*), a family which generally is poorly represented in the Antarctic region. Most of these Fishes are edible, but among them the Atherines (*Atherinichthys*), misnamed Smelts, take the first place."

" As regards Freshwater Fishes, the Antarctic region generally is poor in variety of types ; and Tierra del Fuego does not differ from the mainland, except in being still more pauperized. The two characteristic families of this region, the *Haplochitonidæ* and *Galaxiidæ*—of which the former are the analogues of the Northern *Salmonidæ*, and the latter of the *Esocidæ*—are both represented in the island, as far as we know at present, by four or five species, all of which are of small or even very small size."

Fishes above all others likely to impress travellers are the beautiful delicate-looking *Atherinichthys laticlavia*, so often alluded to by voyagers, one of the very best Fishes I have eaten in any part of the world ; and a Grey Mullet (*Mugil*), found alike in the sea and in freshwater streams, and perhaps identical with *M. cephalus* of the northern hemisphere.

Although I put myself to considerable trouble in collecting Spiders, I have only been able to determine the families of these*. Families accounted for are :—*Lycosidæ* (Wolf Spiders) ; *Theridiidæ* (Line Spinners) ; *Archæidæ* ; *Argiopidæ* (Orb

* By the kindness of Mr. A. S. Hirst and Mr. F. P. Smith.—R. C.

Spinners); *Clubionidæ*, *Drassidæ*, *Agelenidæ*, *Dictynidæ* (all Tube Spinners, as also are *Lycosidæ*); *Atypidæ* (Purse-Web Spiders); *Thomisidæ* (Crab Spiders).*

Principally, the species are *Drassidæ* and *Clubionidæ*. Whether there are any novelties remains to be seen. Of known rare forms, there is at least one of exceptional interest in *Mecysmauchenius segmentatus*, representing the *Archæidæ*, a family of two existing species, the other of which inhabits Madagascar.

Insects have a more than ordinary element of interest in such a region as this.

Hymenoptera, whose life and soul depend so much on sunshine and warmth, are very few. Eight species collected by me are referred by Colonel Bingham to the families *Apidæ*, *Eumenidæ*, *Ichneumonidæ*, and *Proctotrupidæ*. The most conspicuous insect, not plentiful but met with here and there as a solitary individual, is a large thickly-furred orange-coloured Bumble Bee (*Bombus dahlbomii*). Another of the *Apidæ* is a Solitary Bee, genus *Osmia*. Honey Bees are entirely absent. Solitary Wasps (*Eumenidæ*) have a representative in *Odynerus vespiformis*. In *Ichneumonidæ*, there is the ferocious-looking *Cryptus bellicosus* having an ovipositor some two and a half inches long.

In Lepidoptera, it is not surprising to find very few Butterflies. Indeed, to take a Butterfly at all in these furious elements was to me a novel experience. It was only at intervals of many days, or sometimes of several weeks, that I was able to do so. Four species were all I could collect; two *Nymphalidæ* and two *Pieridæ*. Of these, the most striking is a little Fritillary (*Argynnis cytheris*). The remainder consist of a small Brown (*Neosatyrus boisduvalii*); a White (*Tatochila argyrodice*); and a

* As a help to the field naturalist who may have no knowledge of Spiders, I have asked Mr. R. I. Pocock to determine these as far as is practicable on bionomical lines. He has very kindly done so; but, it is only right to add, as he says, that however descriptive of life habit, several of the names are not good from the zoological standpoint.—R. C.

Dark Clouded Yellow (*Colias cunninghami*), whose female is constantly pale.

Moths are more plentiful. Of these, Sir George Hampson observes that they are what might be expected to occur, being allied to the insects of the higher Andes with a close parallel to the fauna of New Zealand. Families represented are principally *Noctuidæ*, *Geometridæ*, and *Pyralidæ*, with a few *Tortricidæ*, *Tineidæ*, *Saturnidæ*, and *Hepialidæ*. The only family apparently absent which would naturally be looked for is that of the *Arctiadæ*.

The Moths are throughout remarkable for sombre plumage. Not one in my collection has any vivid colouring. The commonest species, perhaps, is a Geometrid, *Lissopsis virgellata*, whose ghostly forms flitting in all directions enhance the gloom of night. An insect which interested me more than any is a tiny day-flying Noctuid, *Anarta trisema*, taken in bright sunshine at the same time as the Fritillary. *Feltia clerica* is a fairly large and handsome Noctuid, of nocturnal habit, likely to be remarked as something out of the ordinary. A large Swift, near to or may be identical with *Hepialus luteicornis*, of which I obtained a single example, is the largest Moth taken by me. A small Swift (*H. fuscus*) is fairly abundant.

With all there was to do in other ways, I could not undertake the systematic collecting of Diptera. Hardly is it possible to arrive at any correct estimate of this order from the results achieved by other expeditions, as the collecting done hitherto in the island is of too scanty a nature, with the exception of the collection made by the French Mission to Cape Horn—and in his work on this, Bigot records no localities. Provisionally, the following families may be taken to occur:—*Muscidæ* (House-Flies, Blue-Bottles, etc.); *Syrphidæ* (Hover-Flies); *Dolichopodidæ*; *Empidæ*; *Tabanidæ* (Horse-Flies); *Rhyphidæ*; *Tipulidæ* (Crane Flies); *Limnobiidæ*; *Psychodidæ*; *Chironomidæ* (Midges); *Bibionidæ*; *Mycetophilidæ* (Fungus Midges). *Culicidæ* (Gnats or Mosquitos) appear to be absent.

Of the insects taken by myself, the greatest personality is a Horse-Fly, determined for me by Mr. E. E. Austen as *Tabanus magellanicus*, which attacks horses—doubtless also the guanaco, which is probably its original victim.

In Aphaniptera, I obtained a rare Flea (*Stephanocircus minerva*) parasitic on *Ctenomys*.

Coleoptera are represented in *Cicindelidæ*, *Carabidæ*, *Staphylinidæ*, *Silphidæ*, *Nitidulidæ*, *Coccinellidæ*, *Dascillidæ*, *Lampyridæ*, *Telephoridæ*, *Elateridæ*, *Tenebrionidæ*, *Lucanidæ*, *Geotrupidæ*, *Melolonthidæ*, *Rutelidæ*, *Cerambycidæ*, *Chrysomelidæ*, *Curculionidæ*. Large groups represented only by a single species are *Longicornia* and *Phytophaga*. Important families apparently absent are *Copridæ* and *Aphodiidæ*.

Some fifty species are accounted for in my collection.

In naming these as far as possible, some being new, Mr. Gilbert Arrow tells me they consist in a nearly equal degree of forms characteristic of the eastern plains and the western slopes of temperate South America, the latter constituent a very peculiar one showing distinct relationship with the Australian fauna.

About the greatest personality is *Agrius fallaciosus*, one of the Tiger Beetles (*Cicindelidæ*). The handsomest insect is *Ceroglossus suturalis*, one of the Ground Beetles (*Carabidæ*). *Amblyopinus fuegensis*, in *Staphylinidæ*, is an extraordinary departure from other Coleoptera, in that it is parasitic on mammals. Of its host in this case I have no certain knowledge, but believe it to have come from *Ctenomys*. *Taurocerastes patagonicus*, the single representative in *Geotrupidæ*, is rare. I took but two examples, both males. *Microplophorus magellanicus*, the Longicorn, is most destructive to forest trees. Its larvæ are a chief food of the woodpecker. *Chrysomelidæ* are represented by *Microthea ochroloma*. An insect likely to excite interest when met with is the handsome glossy-black wonderfully granulated *Nyctelia granulata*, one of the Cellar Beetles (*Tenebrionidæ*). Another of this family, common under all sorts

of objects, is the clumsy *Emalodera obesa*. My first series was taken from under the remains of a whale on the beach in San Sebastian Bay. Plentiful on tree-trunks on the outskirts of forest is the jet-black spider-like slowly-moving extraordinarily hard-dying *Rhyephenes lævirostris*, one of the Weevils (*Curculionidæ*). Forty-eight hours in normally strong cyanide fumes does not certainly kill this insect. *Silpha biguttula* is common in carrion. The powerful *Sclerostomus femoratus*, one of the Stag Beetles (*Lucanidæ*), is found buried deep in rotten tree trunks. On the open flats a Brown Chafer (*Aulacopalpus pilicollis*), is a principal prey of the burrowing owl in spring. A smaller Brown Chafer (*Sericoides*), and *Haplous segmentarius* in *Telephoridæ*, are exceedingly plentiful on umbelliferous flowers—particularly celery.

In Hemiptera, I collected but four species, representing *Pentatomidæ*, *Reduviadæ*, *Saldidæ*, and *Aradidæ*—in *Isodermus gayi*,* very abundant under the bark of trees.

In Neuroptera, I saw only *Æschna diffinis*, which I afterwards took at Punta Arenas, and again on board the “Asuncion de Larrinaga” when lying at anchor five miles off Monte Video.

Remarkable Crustacea are a large Rock Lobster (*Palinurus*), a great delicacy of the ocean; and a formidable Crab (*Lithodes antarctica*) whose shell is completely armed with thorny spines. A Wood Louse (*Styloniscus magellanicus*) is abundant on land.

All the main classes of Mollusca are represented—Mr. Edgar Smith informs me—namely, Amphineura, Gastropoda, Scaphopoda, Pelecypoda, Cephalopoda.

Conspicuous Marine species are:—*Trophon geversianus*, *Acanthina imbricata*, *A. calcar*, *Voluta magellanica*, *V. ancilla*, *Bullia squalida*, *Argobuccinum vexillum*, *A. magellanicum*, *Photinula cærulescens*, *Patella ænea*, *Nacella mytilina*, *Siphonaria lessoni*, *S. redimiculum*, *Mactra marcida*, *Darina solenoides*, *Chione exalbida*, *Modiolarca trapezina*, *Mytilus magellanicus*, *Pecten patagonicus*, *P. corneus*. The most abundant are a large

* For this name I am indebted to Mr. W. L. Distant.—R. C.



A SILENT POOL

Mussel (*Mytilus magellanicus*) and a large Limpet (*Patella ænea*). A large and handsome Volute (*Voluta magellanica*) is the most striking of all.

Freshwater and Land species, as might be expected in so unfavourable a climate, are insignificant in number and importance: the former are represented by *Limnæa* and *Chilina*; the latter by *Perronia*, *Succinea*, and *Amphidoxa*, all small.

Earth Worms obtained by me in various parts of the island, have been determined by Mr. F. E. Beddard as *Acanthodrilidæ*, genus *Chilota*, known to occur in Patagonia and South Africa.

“Whoever you are, come travel with me!

Travelling with me you find what never tires—

The Earth never tires,

The Earth is rude, silent, incomprehensible at first,

Nature is rude and incomprehensible at first,

Be not discouraged, keep on, there are divine things well
envelop’d,

I swear to you there are divine things more beautiful than
words can tell.”

LAST
WORDS

Quaint simple lines are these of Walt Whitman, yet how profound is the truth they convey!

As a wanderer in many lands, I live more and more in distant scenes. It is, then, I find, ever the elemental which constitutes the magnet of attraction, rather than the work of man—the primeval forest or desert or ocean rather than the great city; the giant tree rather than the imposing building; solitude and silence rather than the stir and hum of the vast community.

In the many complexities and unrealities of modern civilization, I seem to have no abiding place.

Often, and often, am I back in Tierra del Fuego.

Distance and time are annihilated. All is with me in sense, just as when there:—the exquisitely subdued tone of everything in land and sky and sea;—the soft sunlight resembling bright moonlight rather than the light of day;—the solemn enduring

grey skies drawn out from horizon to horizon ;—the Southern Cross high overhead, and that mysterious Black Cloud ;—the silent snows eternally bearing witness to the sky ;—the utter desolation of the sea-shore ;—the gloom of the forest, startled only by the crash of falling timber or the cry of *Scytalopus* ;—the scent of the Calafate ;—the roar and rattle and swish of the wind ;—the plaintive quavering neigh of the Guanaco ;—the gaggle of the Geese ;—the harsh screams of the Tero-Tero ;—the silvery “*Pi-yi*” of the Oyster-catcher ;—the wail of *Eudromias* ;—the “*Tink-Tink*” of the Ibis ;—the petulant screech of the Chimango ;—the way of the Burrowing Owl ;—the friendly little *Centrites* ;—the Short-eared Owl and the Ashy Harrier beating the marshes together in daytime.

Amidst this environment I see the forms of fellow Men, with whom I cannot but associate generous Horses and faithful Dogs, Men whom one came to meet only to part from as quickly—

“ Ships that pass in the night, and speak each other in passing ”

—yet with whom, nevertheless, through mutual goodwill and assistance freely offered and as freely accepted, a bond of sympathy was constituted which can never be severed, even though our paths may never converge at any future time.

Memories of friends such as these are at once precious and sad. If communion be possible between spirit and spirit in mortal Man, they know how often they have place in my thoughts, even as I hope and believe I have place in theirs.

Richard Crawshaw

LEIGHTON BUZZARD

1907

INTRODUCTION

THE Birds dealt with in this work do not claim to represent absolutely every species occurring in Tierra del Fuego; but they are, I believe, the most comprehensive collection yet made in the island, and include many recorded from there for the first time.

Such as it is, this collection is the work of my own hands. Alone as I was, an amateur, these results were not attained otherwise than slowly and laboriously, indeed wearily enough at times; for although the greatest consideration was shown me by the white settlers, conditions of life in this region are hardly conducive to work of the kind. Fellow travellers, then, who have practical experience of what Bird-collecting means in the earth's bye-ways—where so many pursuits claim their share of attention, and there is always one's life to live from day to day—will understand something of the effort involved.

As to this book, it is of the nature of a work of the kind that, no matter how assiduously or how long one may apply oneself, there abides with the conscientious author the knowledge at heart that the result is not as satisfactory as he could wish. Such is my feeling. The further I have progressed the more have I come to realize the immensity of the subject, to say nothing of collateral questions arising by the way. Its scope, in fact, is well nigh infinite. All I claim for this effort in the direction of comprehending it is that I have done my best.

In working at my Birds in the British Museum of Natural History, all facilities of access to the collection there have been accorded me by Dr. R. B. Sharpe and his staff.

To the Zoological Society and to the Royal Geographical Society I am indebted for unstinted use of their valuable

libraries, which I shall always associate pleasantly with their respective librarians, Mr. F. H. Waterhouse and Mr. Edward Heawood.

I have, also, had reference to such books as I wished in the British Museum.

To Mr. Quaritch I owe publication on a scale which would never have been attempted by myself alone ; nor carried into being but for the loyal collaboration and able direction of his assistant.

THE AUTHOR

INDEX

ACCIPITRES		PAGE			PAGE
Polyborus tharus		1	Myiotheretes rufiventris		60
Milvago chimango		7	Tænioptera pyrope		62
Circus cinereus		10	Muscisaxicola macloviana		64
Buteo erythronotus		12	Centrites niger		65
Geranoætus melanoleucus		15	Anæretes parulus		68
Falco fusco-cærulescens		17	Elainea albiceps		70
Tinnunculus cinnamominus		19	Geositta cunicularia		72
STRIGES			Cinclodes patagonicus		74
Strix flammea		21	„ fuscus		76
Asio brachyotus		26	Oxyurus spinicauda		78
Bubo magellanicus		30	Siptornis anthoides		79
Speotyto cunicularia		31	Pygarrhicus albigularis		80
Glaucidium nanum		35	Scytalopus magellanicus		81
PSITTACI			HERODIONES		
Conurus smaragdinus		36	Nycticorax cyanocephalus		84
PICI			Theristicus melanopis		86
Ipocrantor magellanicus		37	Phœnicopterus ignipalliatuſ		89
PASSERES			ANSERES		
Turdus magellanicus		39	Cygnus nigricollis		90
Troglodytes hornensis		40	Coscoroba candida		92
Cistothorus platensis		43	Chloephaga antarctica		93
Anthus correndera		45	„ magellanica		94
Tachycineta meyeri		48	„ dispar		95
Atticora cyanoleuca		48	„ rubidiceps		99
Chrysomitris barbata		49	„ poliocephala		101
Zonotrichia canicapilla		51	Anas cristata		102
Phrygilus gayi		52	Mareca sibilatrix		104
„ melanoderus		54	Daſila spinicauda		106
Curæus aterrimus		56	Querquedula flavirostris		107
Trupialis militaris		57	„ versicolor		109
Agriornis livida		59	Tachyeres cinereus		110
			RALLI		
			Fulica leucoptera		115

LIMICOLÆ		PAGE	TUBINARES		PAGE
<i>Belonopterus chilensis</i>	.	116	<i>Pelecanoides urinatrix</i>	.	142
<i>Eudromias modesta</i>	.	118	<i>Diomedea exulans</i>	.	144
<i>Ægialitis falklandica</i>	.	120	STEGANOPODES		
<i>Pluvianellus sociabilis</i>	.	121	<i>Phalacrocorax brasiliæ</i>	.	149
<i>Hæmatopus leucopus</i>	.	123	„ <i>magellanicus</i>	.	150
„ <i>ater</i>	.	125	PYGOPODES		
<i>Gallinago paraguayæ</i>	.	126	<i>Podiceps americanus</i>	.	151
<i>Tringa fuscicollis</i>	.	128	<i>Æchmophorus major</i>	.	152
<i>Limosa hudsonica</i>	.	130	SPHENISCI		
<i>Attagis malouinus</i>	.	130	<i>Spheniscus magellanicus</i>	.	153
<i>Thinocorus orbignyæ</i>	.	134			
„ <i>rumicivorus</i>	.	135			
<i>Sterna hirundinacea</i>	.	137			
<i>Larus glaucodes</i>	.	140			
„ <i>dominicanus</i>	.	141			

ILLUSTRATIONS

PLATES OF BIRDS

Geranoœtus melanoleucus	<i>To face p.</i>	15
Glaucidium nanum	„ „	35
Ipocrantor magellanicus	„ „	37
Cistothorus platensis	„ „	43
Chrysomitris barbata	„ „	49
Phrygilus gayi	„ „	53
„ melanoderus	„ „	55
Trupialis militaris	„ „	57
Agriornis livida	„ „	59
Myiotheretes rufiventris	„ „	61
Centrites niger	„ „	67
Anæretes parulus	„ „	69
Oxyurus spinicauda	„ „	79
Pygarrhicus albigularis	„ „	81
Scytalopus magellanicus	„ „	83
Theristicus melanopis	„ „	87
Chloephaga dispar	„ „	95
Anas cristata	„ „	103
Pluvianellus sociabilis	„ „	121
Attagis malouinus	„ „	131
Podiceps americanus	„ „	151

LANDSCAPES

Nose Peak Forest	<i>Frontispiece</i>
The Sea-shore at the Entrance to Admiralty Sound . .	<i>To face p.</i> ix
The Summit of the Sierra Carmen Sylva	„ „ xi
A River Pool in the Forest	„ „ xiii
The Pampas of the Lowlands	„ „ xv
In the Sierra Carmen Sylva	„ „ xvii
An Antarctic Beech	„ „ xix
A Silent Pool	„ „,xxxiii

The Downs on the South Coast of Useless Bay	<i>To face p.</i>	13
Outskirts of Forest	„ „	39
A Swamp in the Sierra Carmen Sylva	„ „	41
On the Slopes of the Sierra Carmen Sylva	„ „	47
A Peak in the Sierra Carmen Sylva	„ „	65
A Forest Stream	„ „	71
The Atlantic Coast	„ „	75
Undergrowth of Antarctic Beech	„ „	79
Nose Peak Forest	„ „	85
An Inland Lagoon	„ „	91
A Forest Stream	„ „	107
The Estuary of the Rio San Martin	„ „	127
Plateau above Cheena Creek	„ „	133
Cheena Creek Flats	„ „	135
The Sea-shore North-West of Nose Peak	„ „	149

WOODCUT

Calafate	<i>On dedication</i>
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MAP

Tierra del Fuego	<i>To face p.</i>	158
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ACCIPITRES

Family FALCONIDÆ

POLYBORUS THARUS (Molina)

Le Busard du Brésil, *Brisson, Ornithologie*, i, p. 705, 1760.

Falco tharus, *Molina, Saggio Storia Naturale, Chili*, p. 264, 1782.

Caracará, *Azara, Páxaros, Paraguay y La Plata*, i, p. 42, 1802.

Polyborus vulgaris, *Vieillot et Oudart, Galerie Oiseaux*, i, p. 23, pl. vii, 1825; *D'Orbigny, Voy. Amér. Mérid., Ois.*, p. 55, 1835.

Polyborus brasiliensis, *Gould and Darwin, Voy. "Beagle," Birds*, p. 9, 1841.

Polyborus tharus, *Sharpe, Cat. Birds Brit. Mus.*, i, p. 31, 1874; *Durnford, Ibis*, p. 161, 1876, p. 188, 1877; *Sclater and Hudson, Argentine Orn.*, ii, p. 81, 1889; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 9, 1891; *Oates, Cat. Birds' Eggs Brit. Mus.*, ii, p. 232, 1902.

Habitat.—Brazil and Peru, to Cape Horn.

Eggs, Sara Settlement, 10th Oct.; ♀, Cheena Creek Settlement, 14th Nov., 1904.

Iris—light brown; bill—bluish white, nostrils—pink shading into yellow; legs—yellow.

As a conspicuous personality amongst the birds of the land, the Carancho perhaps stands at the head of all, not it is true as an object of grace or beauty, nor as anything beloved of man or of the animal creation at large, but as a sinister reminder of the dark side of life.

Thus a feature of the landscape, it is depicted by Cook's artist in his quaint drawing of Christmas Sound in 1774, a figure in miniature perching on the rocks.

By D'Orbigny it is said to be "sans nul doute, le plus bruyant et le plus effronté de tous les oiseaux de proie d'Amérique."

The Carancho is common, yet hardly plentiful. Pairs or single birds are seen hanging about a place with ominous

expectancy ; or flying high, croaking sonorously, conspicuous in flight by the humped up carriage of the wings. I have seen as many as four or five together. Evil-looking creatures they are, foreboding no good to the animal world about them.

No other bird has afforded so much scope for the pen of the field observer as the Carancho.

Azara says of it :—"No ignora este páxaro todos los modos de subsistir: los practica: come de todo lo que los Iribús, Gavilanes, Esparveros, Alcones y castas insectívoras. Todo lo sabe, atisba, comprehende y aprovecha; y su especie es tan numerosa casi como todas las demas guerreras juntas."

"Va solo ó con otro, y á veces se llaman y obran acordes quatro ó seis para perseguir alguna presa que no podria pillar uno solo. En estos términos le he visto perseguir á las Garzas, á los Gavilanes acanelados, y á otros páxaros; y es voz comun que del mismo modo mata á los Avestruces, Venados pequeños y Corderos, empezando por quitarles los ojos; y si en las majadas de Ovejas no hay Perros, un Caracará solo basta para comer el cordon umbilical, y destripar á los recién nacidos."

"Exceptuando las Águilas, á todos los demas quita la presa, y puede decirse que cazan tambien para él. Si atisba que algun Iribú ha tragado un pedazo de carne, le persigue volando hasta que se lo hace vomitar. Quando se tira á un páxaro acude prontamente, y si conoce que va herido, se arroja sobre él. Aun quando no sepa si va lastimado, le sigue sin perderle de vista un buen rato, hasta que se asegura que está sano. Aunque de poca altura, se dexa caer como las Águilas sobre los Apereás, Inambús, &c., si las halla á descubierta y quietas; porque si corren ó se ocultan, no puede con ellas: ni hace caso de aves menores, sin duda porque no las puede pillar. Tambien se lleva alguna vez los Pollos de los corrales si los ve solos; pero no á las Gallinas, que no le hacen caso. La Calandria, Golondrinas, Suirirís, Piririgüías, &c., le persiguen, y picándole al vuelo sobre el espinazo, le espantan y ahuyentan."

Of all the birds described by D'Orbigny, in none does he achieve such a masterpiece of realization as in the Carancho.

“Nous l'avons rencontré,” he says, “dans toutes les parties froides, tempérées et chaudes de l'Amérique meridionale, sur les montagnes peu élevées, comme dans l'immensité des plaines. Nous l'avons vu, tour à tour, sur les collines de la Banda Oriental et de La Plata ; au milieu des Pampas de Buenos-Ayres et des marais de la frontière du Paraguay ; sur les côtes arides de la Patagonie ; dans toutes les parties montagneuses et buissonneuses du Chili ; dans les déserts de la côte du Pérou ; sur les montagnes de second ordre de la Bolivia, ainsi que dans toutes les plaines boisées et sur les collines du centre de l'Amérique méridionale ; mais nous ne l'avons pas trouvé sur les Andes, sur les montagnes qui atteignent une hauteur de 4,000 mètres au-dessus du niveau de la mer, ou dans les forêts humides et chaudes au milieu desquelles on ne voit plus de plaines ; encore vit-il sur le bord des rivières qui les traversent, si, déjà, le bord de ces rivières est habité par l'homme sauvage. En effet, le Carácará suit l'homme, soit dans la civilisation des villes, soit dans la simplicité de sa vie pastorale, au sein des plaines ; il le suit, parcourant par hordes dévastatrices les immenses Pampas du sud, on se fixant, enfin, et commençant à cultiver le sol si fécond des contrées chaudes. De même que le Catharte, le Carácará ne trouverait pas assez de nourriture s'il ne s'associait à l'homme, dont il partage alternativement les privations et l'abondance, souffrant, comme lui, la faim, sans se plaindre, ou consommant, en un seul jour, les provisions d'une quinzaine. Sobre ou vorace, tour à tour, il sait se faire à tout, sans jamais abandonner l'homme, qui est quelquefois, malgré lui, son protecteur, mais, bien plus souvent, son persécuteur volontaire.

“Le Carácará n'a donc pas d'asyle qu'il affectionne particulièrement ; et, comme le chien chez les mammifères, et la poule chez les oiseaux, il habite tous les lieux où l'homme peut habiter, puisque celui-ci lui devient indispensable ; c'est, en

un mot, un animal parasite, vivant, ainsi que tous les êtres de son espèce, au dépens de ceux-là même qu'il craint le plus, et qui ne cessent de lui faire la guerre.

“Les Carácarás sont, peut-être, les plus familiers des falconidées. Ils sont si peu sauvages, dans certaines parties de l'Amérique méridionale, où les bestiaux abondent, qu'à peine se dérangent-ils au passage du voyageur ; ou s'ils se croient trop près, ils s'en éloignent seulement de quelques pas, soit en marchant, soit en sautant, pour se poser à peu de distance.

“Généralement querelleurs, ils se livrent sans cesse des combats sanglants, soit pour un perchoir, soit, et plus souvent encore, pour une proie. Alors, comme toujours et partout dans le monde, le plus faible doit céder. Impertinent et se fiant, sans doute, à la force de son bec, le Carácará s'attaque non-seulement aux siens, mais encore aux autres espèces de Carácarás, aux Cathartes, aux Mouettes, ou à tel autre oiseau qui le gêne ou dont il est jaloux. A-t-il vu, par exemple, une Mouette ou un Catharte avaler un bon morceau ? Soudain il s'acharne à sa poursuite, le presse, le harcèle, jusqu'à ce qu'il l'ait contraint à dégorger, pour s'en nourrir lui-même, cet aliment qu'il lui envie ; et, nouveau Stercoraire, vit ainsi, fort souvent, des déjections des autres oiseaux. Les Mouettes, peu belliqueuses, dégorgent facilement, parce qu'elles sont accoutumées à le faire, quand, à la mer, elles sont poursuivies par les Stercoraires et par les Puffins : mais les Cathartes osent quelquefois résister ; et, alors, bataille sanglante, où les Carácarás obtiennent toujours la victoire, qu'ils doivent à la supériorité de leur armes.

“Le vol du Carácará est toujours horizontal, très-rapide, et ses ailes forment alors un angle droit avec le corps. Il ne plane pas, comme la Buse, et n'a pas de manière particulière de voler, quand il chasse. Quelquefois, après la pluie, il étend ses ailes, pour les faire secher ; mais une forme distincte de vol n'annonce jamais chez lui, comme chez les Urubus, l'approche du mauvais temps.”

“Le Carácará est omnivore, et se nourrit de toute substance

animale, putréfiée ou non ; mais il préfère les animaux vertébrés, et, parmi ces derniers, les reptiles ophidiens, remplaçant, à cet égard, en Amérique, le Secrétaire du Cap de Bonne-Espérance. Nous avons été plusieurs fois témoin de la préférence qu'il donne aux serpents. Un domestique à cheval ayant laissé traîner derrière lui une lanière de cuir ou courroie, un Carácará la prit pour un serpent, et suivit, en courant, le cavalier, jusqu'à ce qu'il eût enfin reconnu son erreur. Il mange quelquefois des limaçons et des insectes, mais il faut qu'il soit pressé par la faim. Les sauterelles lui servent plus souvent de pis-aller que les autres insectes. Il prend quelques petits mammifères vivans, mais préfère, en général, une chasse plus facile, et se contente des restes des charognes."

"Jamais il ne chasse aux oiseaux dans la campagne, quoique, dans certaines contrées, il ne puisse voler, sans se voir incessamment poursuivi par des troupes de Gobe-mouches, surtout, qui le harcèlent pendant long-temps, sûrs qu'il ne cherchera pas à se défendre ; mais plus hardi parmi les oiseaux domestiques, et vivant quelquefois près d'une couvée de poulets, on le voit descendre inopinément dans une basse-cour, et enlever dans ses serres, malgré la pauvre mère, accourue à la défense de ses poussins, un poulet qu'il va dépecer au loin. Ce corsaire de la gent volatile accompagne quelquefois le chasseur, sans que ce dernier s'en doute ; et, dès que le chasseur a touché un oiseau, s'il n'est prompt à le relever, plus alerte que lui, le Carácará lui enlève sa chasse avec une effronterie sans exemple. L'oiseau blessé par le chasseur, est, de suite, achevé par le Carácará, qui, pourtant, n'attaquerait jamais le plus petit oiseau plein de vie. Les Carácarás se réunissent aux Cathartes pour dépecer un animal mort dans la campagne ; et c'est alors que ces avides rivaux se livrent les plus sanglans combats. Que le berger attentif ne perde pas un instant de vue sa brebis prête à mettre bas ; car le Carácará la guette, et la moindre négligence peut coûter la vie au jeune agneau, bientôt déchiré par le cordon ombilical ; aussi avons-nous vu le chien berger de

la province de Corrientes, actif autant que judicieux, s'empressant autour du troupeau que, seul, il conduit, surveille et ramène, n'en laisser jamais impunément approcher un Carácará. Le voyageur a pu se croire entièrement seul au sein des vastes solitudes . . . erreur ; des hôtes cachés l'y accompagnent. Qu'il suspende sa marche ; et, soudain, il verra plusieurs Carácarás paraître aux environs, se percher sur les arbres voisins, ou attendre, auprès, les restes de son repas. Eux repus, et le voyageur endormi, plus de Carácarás, jusqu'au lendemain . . . mais ils partent avec lui, le suivent toujours, sans se montrer, et ne reparaitront de nouveau qu'à sa halte prochaine."

"Met-on, enfin, le feu à la campagne, pour renouveler les pâturages ? Le Carácará, le premier, plane sur ce théâtre de destruction, et vient y saisir, au passage, tous les pauvres animaux q'une fuite rapide allait dérober à leur perte."

"It is a feature in the landscape of these countries," says Darwin, "which will be recognized by everyone who has wandered over them. Although they frequently assemble in numbers, they are not gregarious ; for in desert places they may be seen solitary, or more commonly by pairs. Besides the carrion of large animals, these birds frequent the borders of streams and the sea beach, for the sake of picking up whatever the waters may cast on shore. In Tierra del Fuego, and on the west coast of Patagonia, they must live almost exclusively on this last means of supply."

"A person will discover their necrophagous habits by walking out on one of the desolate plains, and there lying down to sleep : when he awakes, he will see on each surrounding hillock one of these birds patiently watching him with an evil eye."

"Its flight is generally heavy and slow. It seldom soars, but I have twice seen one at a great height gliding through the air with much ease. It runs, in contradistinction to hopping, but not so quickly as some of its congeners. Its cry is loud, very harsh and peculiar, and may be compared to the sound of the Spanish guttural *G*, followed by a rough double *rr*."

Personally I would describe the call as a sonorous “*K-r-u-k*,” uttered twice, which is well assimilated by “*Caracara*,” if properly accented.

Durnford says it feeds indiscriminately on “dead fish, lizards, carcasses of horses, cattle, sheep, or other carrion, and sometimes is said to pick out the eyes of very young sheep.” A nest found by him in the middle of a large swamp was “a massive structure, composed of sticks and lined with a little coarse hair and sheep’s wool, and was full of putrid bits of horse-skin and bones of fish; it measured 5 feet round and $1\frac{1}{2}$ deep, and contained three young ones about a week old.”

At Sara Settlement, on October 10th, I took two eggs from a nest built on poles put up gable-wise on the open flats, to ventilate primitively made hay. The nest was of huge dimensions, built chiefly of tangled masses of sheep’s wool. The eggs are exceedingly handsome. They are of short ovate form, with smooth shell, without gloss, ground colour pinkish cream, spotted and blotched over the entire surface with reddish brown, the spots in places confluent over a considerable portion of the surface. They measure respectively 2·45 by 2·0 and 2·4 by 1·95 inches.

MILVAGO CHIMANGO (Vieillot)

Chimango, Azara, *Páxaros, Paraguay y La Plata*, i, p. 47, 1802.

Polyborus chimango, Vieillot, *Nouv. Dict. d’Hist. Nat.*, v, p. 260, 1816; *D’Orbigny, Voy. Amér. Mérid., Ois.*, p. 60, pl. ii, 1835.

Milvago chimango, Gould and Darwin, *Voy. “Beagle,” Birds*, p. 13, 1841; Gray and Mitchell, *Genera Birds*, i, pl. v, 1849; Durnford, *Ibis*, p. 40, 1877; Sclater and Hudson, *Argentine Orn.*, ii, p. 74, 1889; Oustalet, *Mis. Sci. Cap Horn, Ois.*, p. 15, 1891.

Milvago pezoporus, Gould and Darwin, *Voy. “Beagle,” Birds*, p. 14, 1841.

Ibycter chimango, Sharpe, *Cat. Birds Brit. Mus.*, i, p. 41, 1874.

Habitat.—Brazil, Bolivia, and Chili, to Tierra del Fuego.

The Chimango is another great personality, and one entering very much into the daily life of man, not only in uninhabited regions but more particularly in settlements.

Plentiful as it is, I came away without a skin. I shot one with the .410 at Rio McClelland Settlement, but the nostril was so much damaged that I decided to procure a better specimen, and ultimately did not do so.

The Chimango is so well known and has been so often described by previous observers that it leaves me no ground to record anything original of its life habits.

Azara, D'Orbigny, Darwin, and others have written on it at considerable length.

It is the commonest of the birds of prey, yet hardly a bird of prey in the accepted sense, as it is entirely a scavenger except for insects. There are always some to be seen in settlements. It also frequents uninhabited regions—open country, the outskirts of forests, and the sea shore where I have seen as many as twenty or thirty together. For one of its kind, it is tame and unusually gentle. In man it recognizes a useful friend. Its petulant "*C-h-i-i-i*" is almost as familiar a sound in settlements as the cackling of the poultry whose food it shares under protest from them.

Of it and the nearly-allied Chimachima, Azara tersely observes that:—they differ from the Caracará "*en no embestir á ningun páxaro ni animal, sino quando mucho á algun Ratoncito, y lo dudo. Vuelan con mas descanso, se suelen polvorizar como las Gallinas, prefieren para posarse los árboles secarrones, y á éstos los montoncitos de tierra ó piedras, y no tienen pelada la frente ni el buche.*"

"Comme le Caracará," says D'Orbigny, "*il s'attache à l'homme dans ses établissements, dans ses migrations, dans ses voyages; il a le vol du Caracará, ses manières vives et bruyantes, son esprit querelleur; mais ici, différant de son modèle, il ne tourmente, n'attaque, ne combat que les oiseaux de son espèce; et, sans doute en raison du sentiment de sa faiblesse, ne poursuit*

jamais les autres oiseaux pour les forcer à rendre leur nourriture, afin de s'en nourrir lui-même. Il se montre moins fier que le Carácará, sans lui céder en familiarité, en audace et en effronterie. Sa nourriture est celle du Carácará, les animaux morts, les chairs rejetées des maisons indiennes, les reptiles, les insectes, les jeunes poulets ; et, comme dévastateur des basses-cours, il ne mérite et ne s'attire pas moins que lui l'animadversion des fermiers."

" Plus marcheur que le Carácará, il ne recherche pas autant les grands bois pour s'y coucher, se contentant, les plus souvent, du toit d'une maison, ou d'une butte élevée en terre ou en pierre. On le voit, comme nos poules, en été, se rouler, avec délices, dans la poussière des chemins. Il a une sorte de cri de guerre qu'on peut traduire par la syllabe *Chiii* ; cri prolongé, cri aigu, répété continuellement, et de l'effet le plus désagréable."

In La Plata, Darwin says :—" It lives chiefly on carrion, and generally is the last bird of its tribe which leaves the skeleton, and hence it may frequently be seen standing within the ribs of a cow or horse, like a bird in a cage. The Chimango often frequents the sea coast, and the borders of lakes and swamps, where it picks up small fish. It is truly omnivorous, and will eat even bread when thrown out of a house with other offal. I was also assured that in Chiloe these birds materially injure the potatoe crops, by stocking up the roots when first planted. In the same island, I saw them following by scores the plough, and feeding on worms and larvæ of insects. I do not believe that they kill, under any circumstances, even small birds or animals. They are very tame ; are not gregarious ; commonly perch on stone walls, and not upon trees. They frequently utter a gentle shrill scream."

Durnford frequently observed the Chimango in flocks.

CIRCUS CINEREUS (Vieillot)

Gavilan del campo del ceniciento, Azara, *Pájaros, Paraguay y La Plata*, i, p. 145, 1802.

Falco histrionicus, Quoy et Gaimard, *Voy. "Uranie,"* p. 93, pls. xv et xvi, 1824.

Circus cinereus, Vieillot, *Nouv. Dict. d'Hist. Nat.*, iv, p. 454, 1816; D'Orbigny, *Voy. Amér. Mérid., Ois.*, p. 110, 1835; Gould and Darwin, *Voy. "Beagle," Birds*, p. 30, 1841; Abbott, *Ibis*, p. 152, 1861; Sharpe, *Cat. Birds Brit. Mus.*, i, p. 56, 1874; Durnford, *Ibis*, p. 38, 1877; p. 397, 1878; Sclater and Hudson, *Argentine Orn.*, ii, p. 57, 1889; Oustalet, *Miss. Sci. Cap Horn, Ois.*, p. 19, 1891.

Habitat.—Brazil and Peru, to Tierra del Fuego; the Falkland Islands.

♂, ♀, Useless Bay Settlement, 4th Sept., 1904.

Iris—pale orange; bill—grey, shading into pale orange at base; legs—pale orange.

The Ashy Harrier is a constant feature in the landscape of the open country, especially in the lowland marshes. There are numbers at the head of Useless Bay; I have counted as many as a dozen at one time on the wing. All day long they scour the marshes for rodents and lizards, quartering the ground in leisurely zig-zag fashion, descending every now and then to effect a capture. On calm days in summer, it is a pretty sight to watch them at play in the air—tumbling somersaults, tilting with one another, and constantly uttering their plaintive cry. No matter how tearing the wind, they remain on the wing when hardly another bird will stir from shelter of its own accord. I have never known them prey on birds; other birds have no fear of them. In my experience, they prey exclusively on rodents and a species of green lizard (*Liolaemus magellanicus*). Durnford, however, records an instance of the stomach of one shot in Patagonia containing a freshly killed Seed Snipe (*Thinocorus rumicivorus*).

Practically nothing is written of this Harrier's field habits by Azara, who, it is surprising to find, perceived "no

sensible sexual difference," where the female is not only brown but larger than the grey male.

D'Orbigny's experience in the area in which he met with it is that:—" Quoique répandue sur une aussi grande surface, elle est rare partout ; et l'on n'en voit jamais que, de loin en loin, des individus isolés parcourir, en volant assez près de terre avec aisance et légèreté, bien que lentement, soit les bords des eaux stagnantes et des marais, soit les dunes des côtes de la mer, soit les rivages des rivières."

" Elle plane ainsi toute la journée, presque toujours en ligne droite et contre le vent, ne se repose que pour déchirer une proie, ne va pas sur les arbres faire la digestion, comme tous les autres aquiléides, et ne se repose même jamais sur ceux-ci, se couchant, le soir, au sommet d'une dune ou à terre, au bord d'un ruisseau."

" Elle chasse aux petits mammifères, aux tinamous, aux reptiles, aux mollusques, et même aux insectes ; dès qu'elle les aperçoit, dans son vol, elle s'abat vivement dessus ; et, s'ils s'enfuient, elle les suit soit en volant, soit en courant après, les dévore sur les lieux, quand elle les a saisis, et recommence incontinent sa chasse."

He states these Harriers are " des oiseaux fuyards qui se laissent difficilement approcher dans leur vol, mais qui ont peine à s'envoler, lorsqu'ils sont occupés à manger ; aussi n'est-ce qu'alors qu'on peut les tuer."

Darwin questions this, and says that for one of its order, the Ashy Harrier is very tame.

Personally, I found this Harrier extraordinarily tame ; it has little or no fear of man. It is an ordinary occurrence for this bird to accompany one in the marshes, continually beating or watching for prey from only some fifteen or twenty feet overhead.

In the Falkland Islands, Darwin saw one feeding on the flesh of a dead cow.

There, Capt. Abbott found it resident all the year round, but far from plentiful. He says:—" They are bold for their

size, and very swift in the air. I have observed young birds of this species follow me out rabbit-hunting, and I have seen them swoop at a rabbit, but I never saw them kill one."

The flight is described by Durnford as "very quick and graceful; few birds are a match for this Harrier; and as it sweeps rapidly over the ground, now scarcely clearing the tops of the high grass, and the next minute rising to drop on some luckless victim, it is impossible not to admire its great strength of wing." In Central Patagonia, on the 26th October, he found "many pairs nesting on some low swampy ground amongst long grass. The nest is a slight hollow in the ground, lined with a few pieces of grass; and the complement of eggs two or three; the latter are of a dirty white colour."

BUTEO ERYTHRONOTUS (King)

Haliæetus erythronotus, *King, Zool. Journ.*, iii, p. 424, 1828.

Buteo tricolor, *D'Orbigny, Voy. Amér. Mérid., Ois.*, p. 106, pl. iii, ♂ ♀, 1835.

Buteo erythronotus, *Gould and Darwin, Voy. "Beagle," Birds*, p. 26, 1841; *Abbott, Ibis*, p. 151, 1861; *Sharpe, Cat. Birds Brit. Mus.*, i, p. 172, 1874; *Durnford, Ibis*, p. 38, 1877, p. 397, 1878; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 28, 1891; *Sclater and Hudson, Argentine Orn.*, ii, p. 62, 1889; *Oates, Cat. Birds' Eggs Brit. Mus.*, ii, p. 252, 1902.

Buteo varius, *Cassin, U.S. Expl. Exp., Orn.*, p. 92, pl. iii, 1858.

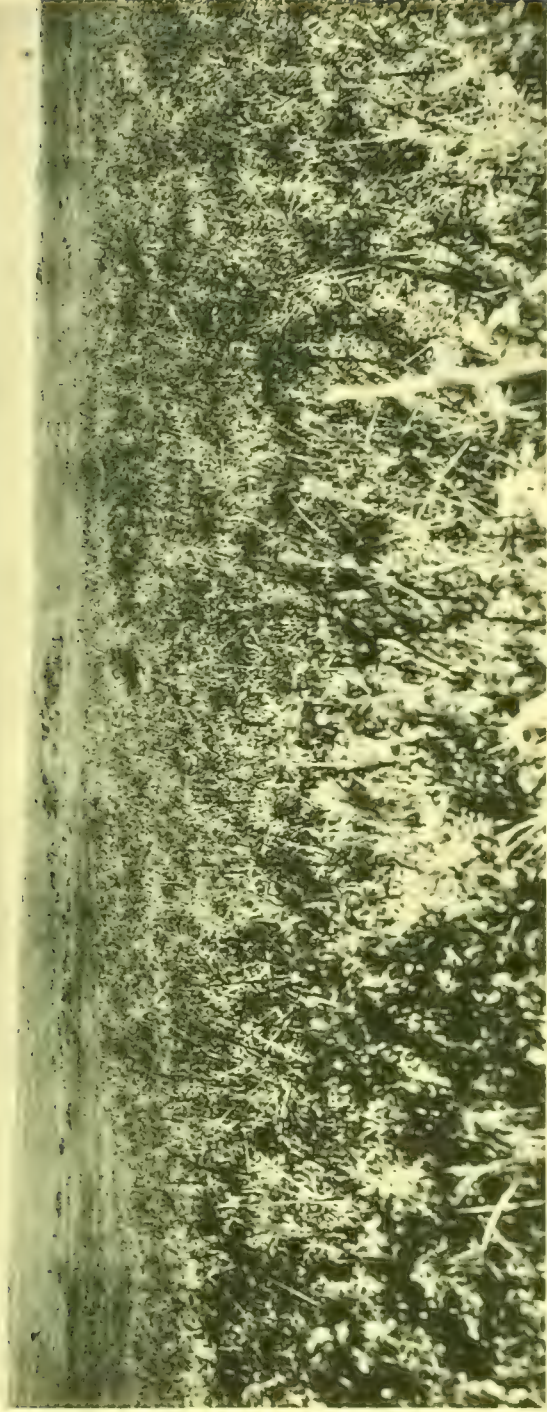
Habitat.—Peru and Chili, to Tierra del Fuego; the Falkland Islands.

One egg, San Sebastian Settlement, 4th Oct.; ♀, Sara Settlement, 7th Oct.; juv. sk., 10th Oct.; ♀, Rio McClelland Settlement, 9th Dec.; juv. sk., 21st Dec., 1904.

Iris—old gold; bill—grey; legs—pale yellow.

Life measurement, wing tip to wing tip, 4 ft. $4\frac{1}{2}$ in.

The variation between the inadult and adult plumage of the Rufous-backed Buzzard is so great that many have been led to believe the two forms distinct species. I was myself deceived in



THE DOWNS ON THE SOUTH COAST OF USELESS BAY
THE HAUNT OF BUTEO ERYTHRONOTUS

this respect. In the inadult bird, the prevailing colours are black or very dark brown and a beautiful pale burnt sienna, whereas in the adult these are slaty grey and white, with a rufous back in the case of the female—so that King's name does not adapt itself to both sexes.

This handsome Buzzard was first described by Capt. King on the first Survey of the "Adventure" and "Beagle," from specimens obtained at Port Famine. Darwin subsequently obtained it in Chiloe Island and the Falkland Islands.

D'Orbigny says:—"Elle aime surtout les coteaux, les montagnes ou bien la proximité des falaises : elle va toujours par paire, et se pose sur les buissons des points élevés des rochers ; et, quoiqu'il y eût, non loin de là, au bord des eaux des saules élevés, nous ne la vîmes jamais s'en approcher ; tandis que nous l'avons trouvée jusqu'à huit ou dix lieues de distance du Rio Negro, au milieu de plaines sèches et arides, où de très-petits buissons couvraient seuls le sol."

He states its prey consists principally of "reptiles ophidiens et batraciens, mais elle chasse aussi aux oiseaux, aux tinamous et aux petits passereaux ; car l'inspection de son estomac nous a moutré souvent des détritrus de ce genre d'alimens ; elle chasse aussi probablement aux jeunes cobayes qui abondent dans les mêmes lieux."

Darwin questions D'Orbigny's statement that it frequents open and dry countries, and says:—"We now see that it is found in the dense, humid forests of Chiloe and Tierra del Fuego."

My experience agrees with D'Orbigny's, for though I have seen this bird on the outskirts of forest, I have never remarked it in forest depths, nor could it well exist there, since it preys on the animals of the open. Undulating country, more or less covered with short scrub and fern, with here and there a clump of trees, is its favourite haunt: the snow-white breast perching on a bush is visible nearly a mile away. It is a conspicuous feature on the downs to the south of Useless Bay, and on the

Atlantic Coast. The flight is particularly easy and graceful, with its large expanse of wing and tail. Sometimes it sweeps the land in wide circles within gunshot from below; sometimes it steers a straight course up wind at a lofty height; sometimes it remains poised high above earth, with never a wing beat for minutes on end. Invariably almost this bird occurs in pairs, which seem inseparably affectionate. It has little fear of man. I killed my first specimen with the .410, No. 7 shot, flying low overhead, on the track between San Sebastian Bay and Sara Settlement. As far as my observations go, it preys exclusively on rodents. Five examples examined by me contained the remains of *Ctenomys magellanicus*.

In the Falkland Islands, Darwin found it preying chiefly on "rabbits which have run wild and abound over certain parts."

Durnford says small rodents are its prey.

Capt. Abbott records this Buzzard common in the Falkland Islands, more especially in those parts where there are many wild rabbits, these being its principal food. "The nest," he says, "is generally situated on a cliff near the shore, or high rocks in the camp, and is composed of the dry sticks of the two Falkland Island bushes with generally a piece of dry grass on the top, and the nests appear to be built up higher every year. A singular nest, which I saw at Salvador Bay, was built in the open camp, on a small bush, and was, I should think, 5 feet high from the ground. The eggs are laid about the beginning of October, although I have taken a single egg in September; and the number is two, or sometimes three."

In Tierra del Fuego, the nest is built either high up in a tree on the outskirts of forest, or on the top of a scrubby bush no more than five or six feet from the ground. I have seen many in both such situations. In the Sierra Carmen Sylva, in early October, I took an egg from a nest on the top of a bush. The nest was large and coarsely built of sticks, almost flat, with hardly an attempt at lining. The egg is a regular blunt oval, with somewhat rough surface, without gloss. It is bluish



FRANOËTUS MELANOTRUCUS

white, marked sparsely over the entire surface with reddish brown, the markings assuming somewhat of the appearance of a ring round what may be taken for the larger end. It measures 2·5 in length by 2·0 inches in breadth. This egg is intermediate between the largest and smallest eggs of *G. melanoleucus*, and a little larger than the largest egg of *B. erythronotus*, in the British Museum.

Parasitic on one of these Buzzards I found bird lice (mallophaga), pronounced by Mr. E. E. Austen to be *Docophorus platystomus*.

The Ona name is "*Kekesh*." Had I been able to understand the language of these red men, they could have informed me of what I only subsequently learned in the British Museum—that the bird in brown plumage is the young of this species, for the name they gave me for this was "*Kekesh Kofya*" !

GERANOÆTUS MELANOLEUCUS (Vieillot)

Aguila de la obscura y blanca, A. de la parda, Azara, *Pájaros, Paraguay y La Plata*, i, pp. 61, 65, 1802.

Spizætus melanoleucus, Vieillot, *Nouv. Dict. d'Hist. Nat.*, xxxii, p. 57, 1819.

Haliætus melanoleucus, D'Orbigny, *Voy. Amér. Mérid., Ois.*, p. 76, 1835.

Buteo melanoleucus, Sharpe, *Cat. Birds Brit. Mus.*, i, p. 168, 1874; Durnford, *Ibis*, p. 38, 1877, p. 397, 1878; Oustalet, *Miss. Sci. Cap Horn, Ois.*, p. 35, 1891.

Geranoaetus melanoleucus, Sclater and Hudson, *Argentine Orn.*, ii, p. 64, 1889.

Habitat.—Columbia and Brazil, to Tierra del Fuego.

♀, Rio McClelland Settlement, 25th Nov. 1904.

Iris—light brown; bill—bluish white shading into dark grey at tip, nostrils—yellowish; legs—pale yellow.

Life measurement, from wing tip to wing tip, 5 ft. 9½ in.

Comparatively few expeditions record the Grey Eagle, and none, I think, hitherto from the island. It is rare on the

Atlantic coast : more common to the south of Useless Bay. It occurs in pairs of local habit. A pair used to breed on Lion's Head Rock, about three miles inland from San Sebastian Bay. Prior to my arrival one had been shot : the mate remained solitary and unapproachable. This was the only specimen I remarked on the Atlantic coast.

Azara and D'Orbigny attribute to it habits of feeding which are altogether contrary to my experience.

Azara says :—"Acudian á comer la carne de las Vacas muertas en las dehesas ó estancias."

In Patagonia and Paraguay D'Orbigny relates how he remarked this species to the number of thirty, in a wood, following and preying on the innumerable flocks of migratory Pigeons, which in winter cover the banks of the Rio Negro, and the plains bordering on the Rio Parana. He adds :—"Nous l'avons vue, souvent, se jeter au milieu d'une de ces troupes qui obscurcissent l'air à l'horizon, et en sortir toujours avec un de ces pauvres oiseaux dans ses serres."

Of its feeding habits in general, he says :—"Elle se nourrit de beaucoup de choses diverses ; comme nous l'avons déjà dit, c'est une des plus cruelles ennemies des troupes voyageuses de Pigeons, dans la saison où ces oiseaux restent réunis ; elle s'en nourrit presque exclusivement, les suivant à cet effet, dans leurs migrations. La reste de l'année, elle chasse aux petits mammifères, tels que les coboyes et les rats, et aux oiseaux, lorsqu'ils se trouvent dans la campagne ; car elle n'entre jamais dans les bois, afin d'y chercher sa proie. Néanmoins, en temps de disette, elle mange tout ce qui peut apaiser sa faim, comme des poissons ou même des cadavres d'animaux. Pour chasser aux Pigeons, elle se contente de fondre sur une troupe qui couvre la terre, quelquefois sur plus de dix-mille mètres carrés, et s'empare sans peine d'un de ces pauvres oiseaux ; ou bien elle fond sur une volée et saisit au vol sa victime."

In Central Patagonia, Durnford found it "not common and never seen far from the sea."

Personally, I have never known this Eagle feed on carrion or kill a bird. It appeared to me to prey exclusively on rodents. A pair commonly frequent the exact same place—perching close together on some projecting ledge of a cliff or bare limb of a tree, whence they contemplate the prospect in dignified repose.

In appearance, whether at rest or on the wing, these birds are magnificently aquiline—wheeling, and scouring the land in quest of prey; working by poise without a wing's beat for as long as one watches them; calling to one another from a distance.

Harmless as I found them in the bird world, they undergo much annoyance from the Carancho and Chimango.

The Ona name is “*Kavareh*.”

FALCO FUSCO-CÆRULESCENS (Vieillot)

Alconcillo aplomado, A. obscuro azulejo, Azara, *Pájaros, Paraguay y La Plata*, i, pp. 175, 179, 1802.

Falco fusco-cærulescens, Vieillot, *Nouv. Dict. d'Hist. Nat.*, xi, p. 90, 1817; Sharpe, *Cat. Birds Brit. Mus.*, i, p. 400, 1874; Sclater and Hudson, *Argentine Orn.*, ii, p. 69, 1889.

Falco femoralis, D'Orbigny, *Voy. Amér. Merid., Ois.*, p. 116, 1835; Gould and Darwin, *Voy. “Beagle,” Birds*, p. 28, 1841.

Hypotriorchis femoralis, Durnford, *Ibis*, p. 398, 1878.

Habitat.—North America from Mexico, throughout South America, to Tierra del Fuego.

♀, Cheena Creek Settlement, 22nd Jan., 1905.

Iris—brown; bill—grey, dark points; legs—greenish yellow.

Few expeditions record the Orange-chested Hobby.

“Aunque no abunda,” says Azara, “no faltan parejas en todos estos paises. En quanto á sus costumbres solo resta añadir, que suele acompañar á los viajeros y cazadores que andan por el campo, voltejeando para perseguir y pillar los paxaritos y Inambús que levantan. Es tan raro, que no he visto sino uno que compré en el Paraguay.”

D'Orbigny's experience was similar. He says :—" Quoique répandue sur une vaste surface de terrain, elle n'est, à proprement parler, commune nulle part. On en rencontre quelquefois des individus isolés ; mais, le plus souvent, ils vont par paires, épars dans les campagnes, et séparés les uns des autres par une grande distance ; car ils sont des plus égoïstes."

"En tout temps, ils ne vivent absolument que de proie fraîche, de mammifères et d'oiseaux, surtout des derniers, qu'ils préfèrent à tout, et qu'ils poursuivent avec une agilité et une adresse extraordinaires."

Darwin obtained one specimen at Port Desire, Patagonia, in Lat. 47°: 44' S.

The French Mission to Cape Horn did not meet with it.

There is no previous record of this Hobby's occurrence in Tierra del Fuego. It is by no means common. I saw, perhaps, less than a dozen all told, some of which will have been the same individual on several occasions. It interested me more than any other bird of prey. It is the wildest, swiftest, and most dashing bird of prey in the island. I was never able to shoot one. Mr. J. G. Cameron killed this specimen for me, with a bullet, at Cheena Creek. It is essentially a bird of the wilds, and does not frequent settlements. All I have seen—with one exception—have been hurrying along bent on their purpose, either flying straight overhead at a tremendous pace usually out of gunshot, or chasing small birds high into the sky. Once I came on one perching on a drift tree on the sea shore.

Durnford states it is the swiftest Hawk in Patagonia. He saw it but rarely. A nest found on the 3rd of November was placed on the top of a thick thorn-bush, and formed of twigs and sticks, lined with grass. It contained three eggs, in colour rich yellowish red, thickly speckled all over with dark rufous spots.

This specimen's stomach contained the remains of a bird.

TINNUNCULUS CINNAMOMINUS (Swainson)

Cernicalo, *Azara, Páxaros, Paraguay y La Plata*, i, p. 182, 1802.

Falco sparverius, *D'Orbigny, Voy. Amér. Mérid., Ois.*, p. 119, 1835.

Falco cinnamominus, *Swainson, Animals in Menageries*, p. 281, 1837.

Tinnunculus sparverius, *Gould and Darwin, Voy. "Beagle," Birds*, p. 29, 1841; *Durnford, Ibis*, p. 39, 1877; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 37, 1891.

Cerchneis cinnamomina, *Sharpe, Cat. Birds Brit. Mus.*, i, p. 439, 1874.

Tinnunculus cinnamominus, *Sclater and Hudson, Argentine Orn.*, ii, p. 69, 1889.

Habitat—South America.

♀, Cheena Creek, 29th Jan.; ♂ ♂, Rio McClelland Settlement, 10th Feb., 1905.

Iris—dark brown; bill—grey, nostrils and eyelids—yellow; legs—pale orange.

The Cinnamon Kestrel is recorded by the majority of expeditions to these regions. Darwin met with it in Peru and Patagonia. It is not common. During my first five months, embracing mid-summer, I saw three. In my last month—that is between January and February—I saw four or five. I believe it to be a migrant arriving towards the end of summer, though a certain number remain throughout the year. Like the Orange-chested Hobby, it frequents open scrub-covered country.

In the winter this Kestrel occasionally takes up its abode in settlements, even in buildings tenanted by man. At Cheena Creek, I was shown traces of where one had roosted in the verandah of the manager's house. Another roosted in the sheep-dip shed at Useless Bay Settlement. I was never able to shoot one. All I saw were flying wide of me, skimming the ground, except once at Crooked Creek, when I had no gun, and a pair let me ride close by them as they sat on a barberry thornbush.

For two of my three examples I am indebted to Mr. Clarke, who shot them just in time for me to take them on board the

“Cordillera” to skin at Punta Arenas. My other example was shot and preserved by Mr. J. G. Cameron at Cheena Creek. He informed me that some months previously, when he was following a Wren (*Troglodytes hornensis*), one of these Kestrels dashed down and went off with it.

Azara says:—“Subsiste de Grillos, Lagartos, Ratoncillos, Viboritas, y otros insectos y reptiles chicos. Tambien le he visto coger, como las Golondrinas, al vuelo Hormigas aladas, sin que nunca haya notado que persiga páxaritos: solo en una ocasion cerca del Rio de la Plata vi que una pareja embistió á un Inambuí, y que le pilláron. Y tambien le he visto pereguir Murciélagos. Si algun Caracará ú otro páxaro grande se acerca adonde tiene su nido, le ataca y ahuyenta.”

D'Orbigny says:—“Elle se nourrit de chauves-souris et de petits mammifères rongeurs, ce qui l'oblige à voler depuis le crépuscule du matin jusqu'à la nuit close; le jour, elle poursuit quelquefois de petits oiseaux. Les Tinamous sont ceux qu'elle chasse le plus souvent; et, dans ce cas, le couple se réunit pour les attaquer; mais elle se nourrit, aussi, de reptiles sauriens, d'insectes, et principalement d'orthoptères ce que nous avons pu reconnaître par l'inspection de son estomac. Elle ne s'approche jamais d'un animal mort; elle chasse absolument comme notre Cresserelle d'Europe.”

This Kestrel appeared to me a swifter and wilder bird than its British congener, and to seek its prey not so much by hovering as by skimming the ground in rapid dashing flight.

This so impressed Durnford that he compares it with *Progne purpurea*, and says, if not quite so quick in turning, in a fair race it would certainly not be behind the Swallow.

The specimen given me by Mr. Cameron contained lizards: of the two preserved by myself, one contained coleoptera and diptera—apparently large midges; the other coleoptera only.

STRIGES

Family STRIGIDÆ

STRIX FLAMMEA (Linnæus)

The Common Barn Owl, *Albin, Nat. Hist. Birds*, ii, pl. xi, 1738;
Waterton, Essays Nat. Hist., p. 7, 1838.

L' Effraie, La Fresnaie, *Buffon, Hist. Nat. Ois.*, i, p. 291, pl. ccccxl,
 1770.

Strix flammea, *Linnæus, Systema Naturæ*, i, p. 135, 1766; *Gould, Birds of Europe*, i, pl. xxxvi, 1834; *Gould and Darwin, Voy. "Beagle," Birds*, p. 34, 1841; *Gould, Birds of Great Britain*, i, pl. xxviii, 1869; *Sharpe, Cat. Birds Brit. Mus.*, ii, p. 291, pl. xiv, 1875; *Sclater and Hudson, Argentine Orn.*, ii, p. 48, 1889; *Lilford, Birds British Islands*, i, p. 109, pl. li, 1890.

Lechuza, *Azara, Páxaros, Paraguay y La Plata*, i, p. 210, 1802.

Strix perlata, *D'Orbigny, Voy. Amér. Mérid., Ois.*, p. 135, 1835.

Strix punctatissima, *Gould and Darwin, Voy. "Beagle," Birds*, p. 34,
 pl. iv, 1841.

Strix delicatula, *Gould, Birds of Australia*, i, pl. xxxi, 1846.

Strix indica, *Gould, Birds of Asia*, i, pl. xvii, 1872.

Habitat.—The Entire World, with certain exceptions.

An Owl, which I think can only be this species, is occasionally met with in the island. At San Sebastian Settlement, two have been killed, one of these in a chimney in the manager's house. I was shown the wings and took them to be those of the Barn Owl. Mr. Clarke assures me he has once or twice seen the same Owl to the south of Useless Bay.

Of all members of the order, the Barn Owl has the widest distribution. Its remarkable variation consequent thereon forms the subject of much divergence of opinion as to whether its many races are to be considered one or many species. The plates quoted in my references serve to illustrate some of its extreme phases of variation.

Azara at once recognized this bird as the Owl of his native land. "Es la misma Lechuza de España," he says. "Se halla en todos estos paises introduciéndose y criando en los templos, y tambien en los agujeros de las peñas y troncos." After men-

tioning the creatures on which it preys, he states that it also eats "velas de sebo, y el aceyte de las lámparas."

D'Orbigny observed it over a vast area, from sea-level to 12,000 feet in the Andes. Well does he say—as is shown in the case of the bird seeking out and occupying a chimney in so remote, new, and small a settlement as San Sebastian—"paraît ne vivre qu'où l'homme a commencé à bâtir des édifices ; elle doit donc le suivre partout, ce qui la fait s'étendre, peu à peu, sur tout le sol américain. Une chose qui nous a cependant étonné dans cette espèce, c'est cette facilité même à s'établir en tous lieux ; en effet, si dans un endroit désert, sans rochers, aux environs duquel il ne peut y avoir aucune effraie, endroit souvent séparé des habitations par une très-grande étendue de terrains sauvages ; si dans un tel endroit, disons-nous, on établit une ville ou seulement un grand village, il ne se passera pas deux ans avant qu'un couple d'Effraies ne vienne prendre possession des nouveaux édifices, sans qu'on sache comment il aura pu s'y rendre et franchir l'espace qui le séparait de son nouveau séjour. C'est surtout au milieu de ces immenses plaines inondées de la province de Moxos, en Bolivia, que nous avons été frappé de cette idée, rencontrant partout des Effraies, dans les missions modernes, séparées souvent des autres par une traite de cinquante lieues de marais ou de terrains inondés, où l'effraie pouvait difficilement vivre. On doit donc supposer que la nuit elle s'éloigne beaucoup de sa demeure habituelle, ou qu'elle voyage plus que ne le font d'habitude les espèces d'oiseaux de proie ordinaires ; on pourrait encore supposer que les jeunes couples, chassés du lieu de leur naissance par leurs parens, dès qu'ils sont en âge de pourvoir à leur existence, ne pouvant pas vivre dans le même édifice, ou ne trouvant pas d'édifices voisins, errent long-temps dans les campagnes, jusqu'à ce qu'ils aient rencontré un lieu habité où ils puissent se fixer."

Darwin obtained this Owl in Northern Patagonia, and in the Galapagos Islands.

In the British Isles, no bird is more closely associated with

human habitations than the Barn Owl, and none so entirely serves the interests of man ; yet, until recently, owing to superstition and ignorant prejudice, it has met with only persecution in return. Even at the present day, it is far from receiving that recognition which is its just and wise due.

Common as this Owl is, and with all the personality it possesses, few people attain to any intimate knowledge of its habits, because, as a bird of the night, its ways are not ordinarily apparent to creatures of the day.

Many as have written on its life history, very few have done so otherwise than in general terms. Of all authorities, the earliest are the best. None equals Charles Waterton, not only in point of original observation, but in pathetic appeal to humanity on this bird's behalf, backed by all the force of character of this man of tremendous personality.

"I own I have a great liking for this bird," Waterton writes in his Essays ; "and I have offered it hospitality and protection on account of its persecutions, and for its many services to me. I wish that any little thing I could write or say might cause it to stand better with the world at large than it has hitherto done."

Returning from his wanderings in other lands in 1813, taught by all he had himself gone through to have a kindly heart for God's creatures, he describes the steps he took to preserve this Owl, hitherto ruthlessly destroyed by his retainers at Walton Hall. "Having suffered myself and learned mercy," as he expresses it, "I broke in pieces the code of penal laws which the knavery of the gamekeeper and the lamentable ignorance of the other servants had hitherto put in force, far too successfully, to thin the numbers of this poor, harmless, unsuspecting tribe. On the ruin of the old gateway, against which, tradition says, the waves of the lake have dashed for the better part of a thousand years, I made a place with stone and mortar, about four feet square, and fixed a thick oaken stick firmly into it. Huge masses of ivy now quite cover it. In about a month or so after it was finished, a pair of Barn Owls came and took up their abode in it.

When I found that this first settlement on the gateway had succeeded so well, I set about forming other establishments. This year I have had four broods, and I trust that next season I can calculate on having nine.

“We can now have a peep at the Owls in their habitation on the old ruined gateway, whenever we choose. Confident of protection, these pretty birds betray no fear when the stranger mounts up to their place of abode. I would here venture a surmise, that the Barn Owl sleeps standing. Whenever we go to look at it, we invariably see it upon the perch, bolt upright ; and often with its eyes closed, apparently fast asleep.”

As to the statement by Buffon and Bewick that the Barn Owl snores during repose, Waterton suggests that what they took for snoring was the cry of the young birds for food. He adds :—“I had fully satisfied myself on this score some years ago. However, in December, 1823, I was much astonished to hear this same snoring kind of noise, which had been so common in the month of July. On ascending the ruin, I found a brood of young Owls in the apartment.”

“If this useful bird caught its food by day, instead of hunting for it by night, mankind would have ocular demonstration of its utility in thinning the country of mice ; and it would be protected, and encouraged, everywhere. It would be with us what the Ibis was with the Egyptians.

“When it has young, it will bring a mouse to the nest about every twelve or fifteen minutes. But, in order to have a proper idea of the enormous quantity of mice which this bird destroys, we must examine the pellets which it ejects from its stomach in the place of its retreat. Every pellet contains from four to seven skeletons of mice. In sixteen months from the time that the apartment of the Owl on the old gateway was cleaned out, there has been a deposit of above a bushel of pellets.”

Waterton occasionally observed this Owl preying on rats and fish.

As to the disputed point whether or not the Barn Owl hoots, he denies this, and says it screeches. “The Barn Owl may be

heard shrieking here perpetually on the portico, and in the large sycamore trees near the house," he says. "It shrieks equally when the moon shines and when the night is rough and cloudy; and he who takes an interest in it may here see the Barn Owl the night through when there is a moon; and he may hear it shriek, when perching on the trees, or when it is on wing. He may see it and hear it shriek, within a few yards of him, long before dark; and again, often after daybreak, before it takes its final departure to its wonted resting place."

So much at home were these Owls at Walton, that at night they often came into Waterton's room; and after flitting to and fro on wing so soft and silent that they are scarcely heard, they would take their departure from the same window by which they had entered.

The dovecot even was frequented by them, without harm or alarm to the inmates.

In more modern times, Lord Lilford thus demonstrates the folly of destroying the Barn Owl, not only in the interest of game but of agriculture:—"I have examined hundreds of pellets cast up by this species in and under their nesting-places, and never discovered either bones or feathers of any game-bird, the castings consisting mainly of the fur and bones of small mammalia, with feathers and skulls of seed-eating birds, and occasionally a few bones and scales of small fishes."

Of its feeding capacity he says that he saw an old pair bring food to their brood "seventeen times in half an hour from a rick-yard near their nest." He saw one about half-grown swallow nine full-grown house mice in rapid succession, till the tail of the ninth stuck out of his mouth, yet within three hours the bird was hungry again, and was barely satisfied with four more.

"This Owl begins to lay early in April," Lilford says, "and begins to sit as soon as one or two eggs are laid, though the full complement is seldom less than six or seven. Young Barn Owls in all stages from newly-hatched down-clad infancy to full feathering may be found in one and the same nest at the same

time, and there is good reason to believe that the juniors are hatched out by the warmth of their elder brethren."

In the advance of civilization, an appeal of another nature than against superstition and prejudice has become necessary on behalf of the Barn Owl, and this is dealt with by Lilford, who protests against the barbarity of massacring Owls for sale and manufacture into fire-screens and plumes for ladies' hats.

Let me second this by quoting the words of one who writes from a broader standpoint than that of the lover of birds alone, words which from their depth of feeling must appeal to all thinking people, the words of Lecky in his "Map of Life":—"It is melancholy to observe," says he, "how often sensitive women who object to field sports and who denounce all experiments on living animals will be found supporting with perfect callousness fashions that are leading to the wholesale destruction of some of the most beautiful species of birds, and are in some cases dependent upon acts of very aggravated cruelty."

The Kuran realizes the following ideal:—"There is no beast on earth, nor bird which flieth with its wings, but the same is a people like unto you—unto the Lord shall they return."

Anyone to whom this in the least appeals, is not likely to be guilty of wantonly sacrificing the life of the meanest fellow creature, still less of so interesting and useful a companion to man as this Owl.

Family BUBONIDÆ

ASIO BRACHYOTUS (Forster)

La Grande Chouette, *Brisson, Ornithologie*, i, p. 511, 1760.

La Chouette, La Grande Chevêche, *Buffon, Hist. Nat. Ois.*, i, p. 296, pl. cccxxxviii, 1770.

Strix brachyotos, *Forster, Philosoph. Trans.*, lxii, p. 384, 1772.

Otus brachyotus, *D'Orbigny, Voy. Amér. Mérid., Ois.*, p. 134, 1835; *Abbott, Ibis*, p. 152, 1861; *Durnford, Ibis*, p. 396, 1878; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 42, 1891.

Strix brachyotus, *Gould, Birds of Europe*, i, pl. xl, 1836.

Otus palustris, **O. galapagoensis**, *Gould and Darwin, Voy. "Beagle," Birds*, pp. 32, 33, pl. iii, 1841.

Brachyotus palustris, *Gould, Birds of Great Britain*, i, pl. xxxii, 1863.

Asio accipitrinus, *Sharpe, Cat. Birds Brit. Mus.*, ii, p. 234, 1875.

Asio brachyotus, *Sclater and Hudson, Argentine Orn.*, ii, p. 49, 1889 ;
Lilford, Birds British Islands, i, p. 95, pl. xlv, 1890.

Habitat.—The Old and New Worlds.

♂, Useless Bay Settlement, 15th Sept., 1904.

Iris—dark yellow ; bill—dark grey ; feet—dark drab.

What an exquisitely beautiful bird is the Short-eared Owl, in its soft-coloured brown plumage beaded with silver round the eye, of the nature of silky down rather than feathers !

This Owl is common in the vast marshes at the head of Useless Bay. It is often to be seen on the wing in daytime. So accustomed are other birds to this Owl flying in their midst that they hardly notice it. It can often be seen beating the marshes in company with the Ashy Harrier, and occasionally the latter dispute its presence. It constantly follows a man on foot or on horseback, if not travelling too fast, for considerable distances, circling round before and behind, either out of curiosity or to turn one to account as a beater. Should one look up at it intently, it immediately concentrates its gaze, turns its head almost completely round as it circles, and screeches "*Che-che!*"

In his account of this Owl, Gould says it is "so universally dispersed as to render it probable that it may be observed over the whole four continents, with the exception of the high northern regions."

"Wherever a bird breeds, that country may justly claim it as one of its indigenous inhabitants : hence this Owl may be so considered in the British Islands ; for although there is an immigration from the north about the end of October, and a corresponding diminution in spring, yet considerable numbers did formerly, and many now, remain to breed in England, Scotland and Ireland. We have abundant evidence that this bird inhabits the African Continent, from north to south.

Mr. Jerdon states that it arrives in India at the beginning of the cold weather, and leaves again about March, spreading itself in the interval over the entire Peninsula, from Cape Comorin to the Himalayas, and being often flushed and killed by the Florican hunters. Every country of the European Continent enumerates it in the list of its avifauna. It is common on the Amur, and doubtless in every part of China. In America, it frequents the fur countries in the summer, and at other seasons the whole of the Northern States, from east to west. We have ourselves been enabled to compare specimens from the Straits of Magellan, Brazil, and North America, with others from every part of Africa and India, all of which were so strictly similar in their markings and size that it was impossible to distinguish them. In Australia, New Zealand, and Polynesia it has never been found ; neither have I any reason to suppose that it is a native of any of the Indian Islands, such as Borneo, Java, the Philippines, and Japan ; everywhere else this flapping diurnal Owl appears to be either a constant resident or a migrant."

"In England, this bird is known to sportsmen as the Woodcock Owl, from the circumstance of its numbers being greatly augmented about the time of the arrival of that bird in November ; in all probability, both species are under the same influence, and compulsorily leave the coast of Norway with the first favourable wind. In November, then, great accessions to the numbers of this bird are observed to take place on our eastern shores, whence they spread themselves over the entire country, and are frequently to be met with, in the latter part of the Partridge-season, among the great turnip-fields and low sedgy flats of Norfolk, Suffolk, Cambridge, and Huntingdon shires. Certain districts are occasionally overrun with the common field mouse to such an extent that the young plantations would be entirely destroyed, were their numbers not kept down by the Short-eared Owl. Instances are on record of from ten to twenty being seen together ; and hence it has been regarded by some as a gregarious bird, which indeed it is, so long as there is an abundance of this kind, but no longer : the mice failing, it feeds upon any other

small quadrupeds and birds it may be able to obtain. Colonel Montagu found the remains of a Skylark and a Yellowhammer in the stomach of one he examined, Mr. Thompson the legs of a *Tringa*, and Mr. Yarrell a half-grown rat and portions of a bat.

“Unlike the rest of its tribe, which habitually reside among trees and rocks, the Short-eared Owl reposes on the ground, and prefers extensive moors and marshes to thickly wooded districts.”

“Its flight is strong and vigorous, and from its diurnal habits it may be frequently observed, particularly in gloomy weather, on the wing at midday, hunting for small birds, mice, frogs, etc., which constitute its principal food. When in a state of repose it secretes itself on the ground, either in a tuft of long grass, heath, or among the thickest part of the turnips.”

Of this Owl's breeding habits in the British Isles, Lord Lilford says :—“The nest when situated in dry heath-lands is merely a scraping of the earth, but in the fens the eggs are often laid upon a few pieces of broken reed-stems, with occasionally a few leaves of that plant, or blades of broad sedge; the eggs are pure white, and vary in number from four to six.”

D'Orbigny says of it in South America—“en Bolivia, au Pérou, au Chili, en Patagonie, depuis les plaines jusqu'à la hauteur de 14,000 pieds au-dessus de la mer, sur les Andes” —“Nous ne l'avons rencontrée que dans les terrains ondulés, ou dans les plaines rocailleuses, sablonneuses, arides ou couvertes de hautes graminées; elle se cache quelquefois, pendant le jour, au milieu de ces herbes. Le plus souvent elle dort peu dans la journée; car on la voit, sans être poursuivie, s'élever du milieu des herbes, s'envoler, planer longtemps; puis, aller se poser sur un tertre, sur un petit buisson ou dans les herbes, d'où elle repart dès qu'on s'en approche, même de très-loin; et nous pouvons assurer qu'elle est beaucoup moins crépusculaire que les autres espèces de sa famille, puisque, même dans la journée, elle chasse encore lorsque le soleil n'est pas fort, et paraît y voir parfaitement.”

Darwin records this Owl from La Plata, Patagonia, the Falkland Islands, and the Galapagos Islands.

In the Falkland Islands Abbott found it a scarce bird.

Durnford says it is resident but not common in Central Patagonia.

BUBO MAGELLANICUS (Gmelin)

Hibou des Terres Magellaniques, *Buffon, Hist. Nat. Ois.*, i, pl. ccclxxxv, 1770.

Bubo magellanicus, *Gmelin, Systema Naturæ*, i, p. 286, 1788; *D'Orbigny, Voy. Amér. Mérid., Ois.*, p. 137, 1835; *Sharpe, Cat. Birds Brit. Mus.*, ii, p. 29, 1875; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 41, 1891.

Nacurutú, *Azara, Pájaros, Paraguay y La Plata*, i, p. 192, 1802.

Bubo virginianus, *Sclater and Hudson, Argentine Orn.*, ii, p. 50, 1889.

Habitat.—Southern Brazil and Peru, to Tierra del Fuego.

♂, Useless Bay Settlement, 31st Aug., 1904.

Iris—bright orange; bill—dark grey; feet—dark drab.

Dr. Sclater and Mr. Salvin do not admit the validity of this species, but include it in *B. virginianus*: Dr. Sharpe's distinction is mainly based on the final joint of the toe being always bare, sometimes the entire toe; whereas in the northern form the toes are more thickly feathered and have even the last joint hidden.

Darwin and Durnford do not record it.

The haunt of the Magellan Owl is open country where there is scrubby undergrowth. It is of much more nocturnal habit than the Short-eared Owl and the Burrowing Owl, yet flies readily in the daytime if disturbed. Its deep booming "*Tuu-kukuru*" is commonly heard in settlements at night. If disturbed in daytime, it is at no loss to protect itself, but flies readily and negotiates a long, straight, powerful flight—of, it may be, several hundred yards—when it alights again, often on some coign of vantage, and looks out for pursuit. I have many times failed to get within shot of one when once disturbed. This specimen proved an exception;—I shot it in scrub at close quarters with so puny a weapon as the .410.

In more northerly regions this Owl's ways are somewhat otherwise,—because, no doubt, the daylight is more powerful.

"Dice su nombre," Azara poetically observes, "fuerte y narigalmente, con que asusta á los que transitan de noche por los bosques elevados, que son sus palacios."

D'Orbigny says :—" On ne le rencontre que dans les bois, et, surtout, dans ceux qui avoisinent les rivières ou les lieux humides, principalement dans les plus touffus, voisins de plaines ou tout au moins de clairières. Le jour on le voit, le plus souvent, seul, isolé, dormant sur les grosses branches les plus cachées des arbres touffus, dans les endroits où le soleil pénètre peu. Nous avons cru remarquer qu'il est sédentaire, et qu'il vient souvent au même perchoir de jour, restant ainsi longtemps possesseur du même bois ; aussi, excepté dans la saison des amours, rencontre-t-on rarement deux de ces oiseaux l'un près de l'autre. Surpris dans leur retraite de jour, ils cherchent peu à s'envoler, contents de siffler et de faire claquer leur bec, en se balançant d'un pied sur l'autre, sur leur branche ; cependant, quand on les approche trop, ils s'envolent ; mais, éblouis par la lumière du jour, ils se dirigent mal et cherchent promptement à se cacher dans le fourré voisin."

SPEOTYTO CUNICULARIA (Molina)

La Chouette de Coquimbo, *Brisson, Ornithologie*, i, p. 525, 1760.

Strix cunicularia, *Molina, Saggio Storia Naturale Chili*, p. 343, 1782.

Urucureá, *Azara, Páxaros, Paraguay y La Plata*, i, p. 214, 1802.

Athene cunicularia, *Gould and Darwin, Voy. "Beagle," Birds*, p. 31, 1841 ; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 44, 1891.

Noctua cunicularia, *D'Orbigny, Voy. Amér. Mérid., Ois.*, p. 128, 1835.

Speotyto cunicularia, *Sharpe, Cat. Birds Brit. Mus.*, ii, p. 142, 1875 ; *Sclater and Hudson, Argentine Orn.*, ii, p. 52, 1889.

Pholeoptynx cunicularia, *Durnford, Ibis*, p. 161, 1876, p. 186, 1877.

Habitat.—North and South America.

♀, Useless Bay Settlement, 26th Aug. ; ♂, 7th Sept., 1904.

Iris—bright yellow ; bill—yellow ; feet—yellowish drab.

The Burrowing Owl is quite a feature of the land. It is common in the open country, though nothing like so plentiful as experienced by Darwin in the Argentine Pampas. There are those who say it is becoming extinct in sheep districts where the undergrowth has been eaten down : others believe its numbers are increasing. To me it appeared most numerous where the undergrowth had been eaten off. Yet it is difficult to explain this, for the sheep have almost trampled out *Ctenomys*, the mole-like rodent which must formerly have constituted its chief food supply. There remain, it is true, vast numbers of a buff-coloured field mouse (*Rhithrodon*) with large ears and eyes and a long tail, and these may suffice. In winter and early spring this Owl preys on rodents ; in summer largely coleoptera, in particular a brown chafer beetle (*Aulacopalpus pilicollis*), as can be seen from the pelts.

This Owl is quite as diurnal in habit as nocturnal, or more so. In the day-time, it can always be seen above ground. It flies at one aggressively, screeching, "*Chiii-chi-chi-chi-chi*," circling round, and then alights a short distance away, to await developments. It occurs in pairs. Usually, both birds can be seen above ground, and make common cause against an intruder. In the breeding season I have several times come upon a pair above ground, and one has gone to earth, while the other has remained above to pursue harrassing tactics.

Azara thus tersely and characteristically describes its ways :—
 "Habita los campos limpios, no los bosques, y se oculta en las cuevas de los Tatús y Vizcachas. No es arisco, y quando uno se le acerca canta fuerte '*Chiii-chi-chi-chi-chi*,' dando un vuelito breve y posándose sobre algun terron, desde donde mira con insolencia al que se le aproxíma; pero otras veces, y siempre que tiene miedo, se entra en la cueva, de la qual nunca se aleja."

D'Orbigny's account is, perhaps, the best of all, and from this I make the following extract :—

"Chaque couple choisit son canton, où il s'établit pour la vie, ne voyageant pas, et ne permettant guère aux autres de

s'établir près de lui. L'Urucurée prend pour domicile un terrier abandonné de tatous, de biscachas, de renards ou d'autres animaux des contrées qu'elle habite, et y passe sa vie; si l'on s'approche de sa résidence vers le milieu du jour, heure à laquelle les autres oiseaux nocturnes sont plongés dans le sommeil le plus profond, on la trouve, quelquefois, dans son trou; mais, le plus souvent au dehors, le mâle et la femelle l'un près de l'autre. Elle voit, de très-loin, ceux qui viennent troubler son repos, et fait entendre alors son cri de guerre ou d'alarme, qu' on peut exprimer par les monosyllabes tchii-tchii-tchi-tchi longtemps prolongés. Elle s'envole pour aller se poser à quelques pas de là sur une butte, où, tout en tournant la tête avec crainte, et regardant, avec une effronterie apparente, l'importun qui la dérange, elle se laisse approcher de très-près, puis s'envole encore, ainsi que sa compagne, va se percher sur un tertre voisin, au sommet d'un petit buisson ou d'un chardon, et recommence son cri, ne pensant à s'aller cacher au fond de son terrier que lorsqu'elle a grand peur, ce qui est très-rare. Elle reste ainsi toute la journée autour de son nid, chasse même, quelquefois, pendant le jour; cependant c'est de préférence vers le soleil couchant, à l'heure où les petits rongeurs sortent de leur terriers, qu'elle commence sa chasse, en planant, comme le font les autres oiseaux de proie; et nous avons cru remarquer qu'au milieu de la nuit elle se reposait de nouveau, pour chasser dès le crépuscule du matin. Il nous a semblé qu'elle dormait également pendant les nuits obscures et pendant les fortes chaleurs du jour, chassant plus spécialement le matin et le soir: le matin, après le soleil levé, quelque temps encore; ainsi que le soir, avant la nuit."

"Sa pose habituelle, lorsqu'elle est à terre dans l'inaction, est presque perpendiculaire, les ailes basses, et la tête enfoncée entre les épaules; si quelque bruit vient troubler sa tranquillité, ou si la sentinelle des autres oiseaux des plaines, le vanneau armé, fait retentir les environs de son cri d'alerte, l'Urucurée dresse la

tête, et son attitude, alors, est grotesque ; elle tourne la tête de tous côtés."

"Quelques auteurs, comme le père Feuillée et Molina, prétendent qu'elle se creuse des terriers profonds dans la campagne. Il nous est, au contraire, démontré qu'elle s'approprie un terrier de tatou, de renard, de mara, et, surtout, de biscacha, plus commode à cause de ses diverses issues et de ses divers compartimens souterrains ; aussi est-on certain de rencontrer l'Urucurée dans les endroits où la campagne est infestée de cette dernière espèce de mammifère. Lorsqu'un couple prend possession d'un de ces terriers, les véritables propriétaires sont obligés de l'abandonner, à cause de la ténacité de l'Urucurée, et, sans doute, aussi, pour raison de propreté ; car la biscacha, si soigneuse, ne peut, à ce qu'il paraît, supporter l'odeur désagréable que porte avec elle l'Urucurée ; odeur commune, au reste, à tous les oiseaux de proie nocturnes."

Darwin met with the Burrowing Owl no further south than Rio Negro, Patagonia, in lat. 41° S.

"In Banda Oriental," he says, "it is its own workman, and excavates its burrow on any level spot of sandy soil ; but in the Pampas, or wherever the *Bizcacha* is found, it uses those made by that animal. During the open day, but more especially in the evening, these Owls may be seen in every direction, standing frequently by pairs on the hillock near their habitation. If disturbed, they either enter the hole, or, uttering a shrill, harsh cry, move with a remarkably undulatory flight to a short distance, and then turning round, steadily gaze at their pursuer. Occasionally in the evening they may be heard hooting. I found in the stomachs of two which I opened the remains of mice ; and I saw a small snake killed and carried away by one. It is said that reptiles are the common object of their prey during the day-time. Before I was aware, from the numbers of mice caught in my traps, how vastly numerous the small rodents are in these open countries, I felt much surprise how such infinite numbers of Owls could find sufficient means of support."



BLAUDIDIUM MANUM

Durnford says :—"It is an Owl of diurnal habits, being fond of sitting on a thistle or clod of earth, whence it flies to seize insects on the wing. Its flight is undulatory, and performed by rapid strokes of the wings. . . . They have a curious and pretty habit of rising almost perpendicularly from the stone or clod of earth on which they have been perching, and toying or playing with each other in the air. Their principal food is mice."

The Ona name is "*Kitep*."

GLAUCIDIUM NANUM (King)

Strix nana, *King, Zool. Journ.*, iii, p. 427, 1828.

Athene nana, *Hombron et Jacquinot, Voy. "Astrolabe" et "Zélée"*, iii, p. 54, Atl. pl. iv, 1853.

Glaucidium nanum, *Sharpe, Cat. Birds Brit. Mus.*, ii, p. 190, 1875; *Sclater and Hudson, Argentine Orn.*, ii, p. 56, 1889; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 45, 1891.

Habitat.—Chili, the Argentine Republic, and Uruguay, to Tierra del Fuego.

♀, Rio McClelland Settlement, 23rd Dec., 1904.

Iris—yellow; bill and feet—greenish yellow.

The Pigmy Owl was discovered by King in the Strait of Magellan on the "Adventure" Survey in 1827: his type of the species is an inadult example, length $5\frac{4}{5}$ inches.

This Owl has been obtained by the "Astrolabe" and "Zélée" South Polar Expedition, 1837-1840; by Cunningham in the "Nassau"; by Coppinger in the "Alert"; and by the French Mission to Cape Horn.

D'Orbigny, Darwin, and Durnford do not record it.

In the Catalogue of Birds in the British Museum, the length of the male is stated to be 8.0 inches, of the female 8.6 inches. This female measures in length 7.5 inches. Since the Catalogue of Birds was published, the series in the museum has increased to thirty, where before there were six examples. On examining

the entire series I find the maximum length of the male 7·5 inches; of the female 8·6 inches, based on a somewhat attenuated specimen.

This tiny Owl must be rare in the island; for, with the exception of Mr. Clarke, hardly any of the sheepmen with whom I was acquainted were aware of its existence until I secured this specimen. I owe it to the White-crested Tyrant. The shrill whistles and excited behaviour of one of these shy birds attracted my attention, and gave me the opportunity I wanted to observe it closely for the first time. I was wondering why it remained so long in the same tree and made so much noise, when, huddled up in a forked branch, I espied the Owl. I saw one other example—on two occasions—on the sea shore at the entrance to Admiralty Sound. Of this Owl's habits I know nothing. It must be entirely a forest form—probably extremely quiet and retiring, and difficult to observe. This specimen weighed exactly 3 ounces—or $1\frac{1}{4}$ ounces less than the Common Snipe of Great Britain—including in the stomach a small rodent.

PSITTACI

Family PSITTACIDÆ

CONURUS SMARAGDINUS (Gmelin)

Perruche des Terres Magellaniques, *Buffon, Hist. Nat. Ois.*, vii, pl. lxxxv, 1783.

Psittacus smaragdinus, *Gmelin, Systema Naturæ*, i, p. 322, 1788 : *King, Surveying Voyages, "Adventure" and "Beagle,"* i, p. 38, 1839.

Conurus smaragdinus, *Finsch, Papageien*, i, p. 525, 1867 ; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 4, 1891.

Microsittace ferrugineus, *Salvadori, Cat. Birds Brit. Mus.* xx, p. 210, 1891.

Habitat.—Chili and Tierra del Fuego.



West, Newman del.

IPOCRANTOR MAGELLANICUS

The existence of such a bird as this Parrot in these high latitudes as reported by the early voyagers was for a long time discredited.

It is common in flocks in the more open portions of the forest to the south of Useless Bay. Unfortunately, I did not at once secure specimens when I could very well have done so : ultimately, on visiting the places where I had seen them, I could not again come across any.

It is plentiful in the forest behind Punta Arenas on the Patagonian mainland, but I never succeeded in finding more than their feathers.

On the Survey of the "Adventure" in 1827, Capt. King met with it in all parts of the Strait, and he says it feeds principally upon the seeds of the Winter's-bark.

At Sara Settlement, Mr. Rigby had a pair of these birds tame, which had been taken from a nest at the head of the Rio Chico.

PICI

Family PICIDÆ

IPOCRANTOR MAGELLANICUS (King)

Picus magellanicus, *King, Zool. Journ.*, iii, p. 430, 1828; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 46, 1891.

Megapicus magellanicus, *Malherbe, Pucidées*, i, p. 8, pl. ii, 1861.

Ipocrantor magellanica, *Hargitt, Cat. Birds Brit. Mus.*, xviii, p. 480, 1890.

Habitat.—Chili, and Tierra del Fuego.

♂, ♀, Rio McClelland Settlement, 4th Dec., 1904.

Iris—orange; bill and legs—dark grey.

The Magellan Woodpecker was discovered and described by King from Port Famine.

The series of sixteen in the British Museum, ranging from Punta Arenas to Valdivia, shows considerable variation in the wings and abdomen. In some adults of both sexes the inner webs of the secondaries are white throughout, in others only barred with white: in some the abdomen is all black, in others the feathers are tipped with white.

In my two examples, representing adults of both sexes, the inner webs of the secondaries are white throughout—pinkish white rather than pure white—and the abdomens pure black.

This Woodpecker is not a common bird. I came across no more than this one pair, though constantly in the forest to the south of Useless Bay. At the time of my ascent of Nose Peak—over eight hours severe going and nearly the same time returning to the seashore through almost impenetrable forest—I did not see or hear one. It may be the forest at this point is too dense. In the more open portions immediately south of Useless Bay, where the timber is large and much devastated by the larvæ of a longicorn beetle, traces of their work are everywhere remarkable, but the birds themselves are rarely seen. Here, the dead standing trees must number quite thirty per cent. Grim and ghostly do these forests appear in this condition. The trees composing this forest are two species of cinnamon beech—*Fagus antarctica* and *F. betuloides*. The insect responsible for much or all of this destruction is *Microplophorus magellanicus*, and on the larvæ of this the Woodpeckers chiefly subsist, working great holes in the rotten tree trunks to get at them.

The stomachs of these two birds contained larvæ, and one wing-case of the perfect beetle.

The Ona name is "*Koketreh*."



OUTSKIRTS OF FOREST
SHOWING WORK OF IPOCRANTOR MAGELLANICUS

PASSERES

Family TURDIDÆ

TURDUS MAGELLANICUS (King)

Turdus magellanicus, *King, Pro. Zool. Soc.*, p. 14, 1830; *Durnford, Ibis*, p. 392, 1878; *Seebohm, Cat. Birds Brit. Mus.*, v, p. 223, pl. xiv, 1881; *Sclater and Hudson, Argentine Orn.*, i, p. 3, 1888; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 79, 1891.

Turdus falklandiæ (*nec Quoy et Gaimard*), *D'Orbigny, Voy. Amér. Mérid., Ois.*, p. 202, 1835.

Turdus falklandicus (*nec Quoy et Gaimard*), *Gould and Darwin, Zool. Voy. "Beagle," Birds*, p. 59, 1841.

Habitat.—Chili, Patagonia, and Tierra del Fuego; Mas Afuera and Juan Fernandez Islands.

♀, Useless Bay Settlement, 26th Aug.; ♂, Rio McClelland Settlement, 20th Dec., 1904.

Iris—dark brown; bill, eyelids, and legs—pale orange.

D'Orbigny and Darwin have not distinguished this species from the closely allied *T. falklandica*. It differs—according to Seebohm—in having the head nearly black, the upper parts brown shading into dull slate on the rump, and the chin and upper throat greyish white; where the Falkland Islands' form has the head chocolate brown, remaining upper parts rich russet brown suffused with olive on the rump, and the chin and upper throat pale russet brown.

It is recorded by Darwin from Chiloe and Tierra del Fuego—no locality stated; by the "Erebus" and "Terror" from Hermite Island; and by the French Mission to Cape Horn from various points in the same region. Durnford met with a single specimen in Central Patagonia.

The Magellan Thrush is common in scrub and in the outskirts of forest; it does not frequent bare grass-land, except in winter, when it may occasionally be seen in the neighbourhood of settlements. I shot my first specimen on the flats at Useless

Bay Settlement, in winter, about ten miles from timber. No one can observe this bird without remarking that it has more of the impudent assertion of the Blackbird than of the deprecating manner of the Thrush. I was long in acquainting myself with its many calls. Should one intrude on its domain, it shows itself curiously hostile—mobbing one, following one persistently, and uttering shrill whistles. If disturbed from covert, it utters “*Tut-tut*,” and flies out chuckling. On those still fine summer evenings which are all too rare in these boisterous regions, it sings from the tree-tops, far on into the night. The song is sweet and Thrush-like, but somewhat limited in conception. It gives one the idea of being practised rather than attained, breaking off somehow at its most interesting point ; it nevertheless contains some beautiful full notes. Usually this Thrush is seen in pairs. The young, when fully able to fly, have the breast spotted similarly to that of the adult British Thrush.

D’Orbigny says :—“ Rarement isolée, elle va plus ordinairement par couple, mais jamais par troupes, et fuit la société des autres oiseaux. Chose assez remarquable pour un oiseau peu inquiété par l’homme, elle est des plus sauvage. Ses mœurs sont celles de nos Grives ; son vol est court, saccadé, peu prolongé, jamais élevé ; vive dans ses mouvemens, elle marche avec vitesse et fait souvent entendre une espèce de sifflement de rappel entre les différens individus.”

Darwin sums it up as “tame, silent, and inquisitive.”

Durnford’s specimen was in company with *Myiotheretes rufiventris*.

The Ona name is “*Kiolts*.”

Family TROGLODYTIDÆ

TROGLODYTES HORNENSIS (Lesson)

Troglodytes hornensis, Lesson, *L’Institut*, p. 316, 1834 ; Sharpe, *Cat. Birds Brit. Mus.*, vi, p. 257, 1881 ; Oustalet, *Miss. Sci. Cap Horn*,



A SWAMP IN THE SIERRA CARMEN SYLVA
A HAUNT OF TRUPIALIS MILITARIS AND CURÆUS ATERRIMUS

Ois., p. 74, 1891; *Oates and Reid, Cat. Birds' Eggs Brit. Mus.*, iv, p. 74, 1905.

Troglodytes magellanicus, *Gould and Darwin, Voy. "Beagle," Birds*, p. 74, 1841.

Habitat.—The Argentine Republic and Chili, to Tierra del Fuego.

♂, San Sebastian Settlement, 29th Sept.; ♂, ♂, 30th Sept.; ♀, Sara Settlement, 13th Oct.; ♂, San Sebastian Settlement, 23rd Oct.; three eggs, Rio McClelland Settlement, 12th Dec., 1904.

Iris—brown; bill and legs—drab.

The Cape Horn Wren is determined by Dr. Sharpe as a pale isabelline race of *T. musculus*, which includes *T. furvus*, having the tail more rufescent with pale-brown bars, and the under surface of a light vinous isabelline, deepening into tawny buff on the flanks and under tail-coverts. The under tail-coverts are generally uniform, but not always so, and some have distinct white tips with subterminal spot-like bars.

The series in the British Museum shows considerable variation in size and markings.

My Tierra del Fuego birds are throughout uniform: even between the sexes, there is no outward difference. On the average, the series measures:—

Length 4·7; culmen 0·6; wing 2·15; tarsus 0·7; tail 1·95 inches.

I had difficulty in securing a female: of six examples shot and preserved by me, five were males.

This Wren is one of the commonest birds in the scrubby bush composed of *Chilietrichum amelloideum* and the black currant in the Sierra Carmen Sylva, also on the outskirts of dense forest. It does not occur in open grass-land. In its behaviour towards man it is curious and impudent. If one sits down to rest or stops to do anything, it appears on the scene, creeping on one through the undergrowth, hopping round, hanging head downwards, and uttering its petulant "*Chi-i-i*" in protest against intrusion. At such times, though deprecating

one's presence and suspicious of one's intentions, it nevertheless comes so close as almost to perch on one's person. At the time of taking the picture of the swamp in the Sierra Carmen Sylva, I was obliged to wait for nearly an hour for the light to improve. Hardly was my camera in position when one of these birds appeared in the bush in the immediate foreground, and there remained, scolding incessantly for as long as I was there. The song is short, but very cheery, and reminds one rather of the Chaffinch (*Fringilla cœlebs*): I should define it on paper as—"Cha-cha: chi-chi: chu-yu."

Darwin drew no distinction between *T. hornensis* and *T. furvus*. Writing of both as *T. magellanicus*, procured variously near Rio de Janeiro, on the banks of the La Plata, in Chili, throughout Patagonia, and in Tierra del Fuego, he says:—"Its habits resemble very closely those of the common *Troglodytes* of England. In the open country, near Bahia Blanca, it lived amongst the thickets and coarse herbage in the valleys; in Tierra del Fuego, in the outskirts of the forest. Its chirp is harsh."

In the British Museum there is a specimen of this Wren which was taken at sea, on board H.M.S. "Amethyst," one hundred and forty miles N.W. of the Falkland Islands.

I was never able to find a nest. At length, a woodcutter brought me one with three eggs, which he had taken from a hollow, in a stack of logs. The nest is a loose structure of grasses and feathers, amongst which last are those of Gay's Finch. The eggs are pinkish white, spotted with rusty red above, pink below, the spots forming a ring round the larger end. In the case of two, the markings are heavier than in the third, the latter being more finely marked and paler. They measure 0.65 by 0.5, 0.6 by 0.5, 0.65 by 0.5 inches.



West. Newman imp.

CISTOTHORUS PLATENSIS

CISTOTHORUS PLATENSIS (Latham)

Le Roitelet de Buenos Ayres, *Buffon, Hist. Nat. Ois.*, vi, pl. dccxxx, 1770.

Sylvia platensis, *Latham, Index Orn.*, ii, p. 548, 1790.

Troglodytes platensis, *Gould and Darwin, Voy. "Beagle," Birds*, p. 75, 1841.

Troglodyte de marais, *Hombroux et Jacquinot, Voy. "Astrolabe" et "Zélée," Atlas*, pl. xix, 1853.

Cistothorus platensis, *Abbott, Ibis*, p. 153, 1861; *Durnford, Ibis*, p. 168, 1877; *Sharpe, Cat. Birds Brit. Mus.*, vi, p. 244, 1881; *Sclater and Hudson, Argentine Orn.*, i, p. 15, 1888.

Habitat.—Southern Brazil and Bolivia, to Tierra del Fuego; the Falkland Islands.

♀, Useless Bay Settlement, 25th Aug.; ♀, 1st Sept., 1904.

Iris—brown; bill and legs—drab.

There is a good series of the Marsh Wren in the British Museum, mostly in excellent condition, ranging from Chili to the Strait of Magellan and the Falkland Islands, and remarkably constant in form.

If Azara's Troglodito del Basacaraguay has been hitherto correctly referred to this species, the life habits of the former as described by that great observer in Buenos Ayres differ widely from those of the bird met with by myself.

"Es muy conocido por este nombre entre los Guaranis," says he, "aunque en Buenos Ayres le suelen llamar Ratoncito. Aquel nombre alude á su canto, y éste á que, principalmente por invierno, corre los aleros del tejado, las grietas de las paredes y agujeros de los troncos, entrando á veces á los quartos, en busca de arañas y otros insectillos. Es comun sin abundar, y jamas se interna en los campos, ni pasa de la orilla de los bosques: las costas de éstos, los matorrales, setos y pueblos, son su domicilio; pero tambien baxa al suelo, y anda á saltillos con ligereza, llevando casi siempre la cola levantada, y sin asustarse de las gentes."

On the other hand, his account of T. del Todo Voz corresponds with my experience of *C. platensis*, for he says:—"Habita

únicamente los campos que tienen mucho pasto alto y broza, donde se oculta, y pasa su vida sin salir hasta que le pisan. Por lo comun no se consigue hacerle volar sino tres veces, y despues es imposible precisarle á que salga. Es esquivo, inquieto, y por las madrugadas y tardes trepa á saltillos por las varillas mas delgadas de las escobas ó plantitas, levantando la cola ; pero no entra jamas en bosque, ni matorral, ni en las habitaciones.” His rendering of the song of this bird practically corresponds with the song of *C. platensis*, whereas Basacaraguay if given the necessary accentuation is a possible representation of the song of the Cape Horn Wren (*Troglodytes hornensis*).

D'Orbigny follows Azara.

In these circumstances, I deem it advisable to omit both these authorities from my references.

The Marsh Wren is the first bird I collected in Tierra del Fuego. I should not consider it common, except locally in such conditions as are necessary to its existence—namely, open marsh land, in long coarse grass and reeds mostly growing in water. I only remember having come across it at the head of Useless Bay. There it is plentiful. It should also occur in the San Sebastian marshes. In a manner peculiar to itself, this Wren conceals itself in the grass, not taking wing until literally trampled out at one's feet. It then flies at the outside twenty or thirty yards, barely clearing the grass ; alights on a grass stalk ; works its way down into the grass ; and, either remains there, or runs along through and under it like a mouse. In vain may one trample the exact spot where one has been marked down. At times it flies readily. In fine weather it perches on the grass tufts, and sings after the manner of a Wren. How such a bird subsists in winter is a mystery. At the time I shot my first specimen, when winter was breaking, the marshes were covered with snow and ice, with here and there patches of water, and all below frozen hard. Yet the stomach contained insects and grass seeds.

Darwin says :—“ In the Falkland Islands, it lives almost

exclusively, close to the ground, in the coarse grass which springs from the peaty soil. I do not think I ever saw a bird which, when it chose to remain concealed, was so difficult to disturb. I have frequently marked one down to within a yard on the open grassy plain, and afterwards have endeavoured, quite in vain, by walking backwards and forwards over the same spot, to obtain another sight of it."

Capt. Abbott says of it, also in the Falkland Islands:—"How singular it is that this little bird should exist in such a place, where, if disturbed on a windy day, its power of flight is so weak that it is carried away by the wind! Whenever I wanted a specimen of this bird, I always followed it and knocked it down with my cap as it was creeping through the grass like a mouse. I have never been able to find its nest."

Durnford found several near Lujan Bridge amongst the thick tufts of "Paja" grass, which there grows in about a foot of water. "These it is very unwilling to leave," he says, "and, when flushed, only flies a few yards, being very anxious to seek the shelter of another tuft. On alighting, it clings to a stout blade of grass, thence creeping, mouselike, into the thickest part. Its food consists of small insects, chiefly coleoptera."

It is known to the Onas as "*Tamamithiri*."

Family MOTACILLIDÆ

ANTHUS CORRENDERA (Vieillot)

Alondra correndera, Azara, *Pájaros, Paraguay y La Plata*, ii, p. 2, 1805.

Anthus correndera, Vieillot, *Nouv. Dict. d'Hist. Nat.*, xxvi, p. 491, 1818; D'Orbigny, *Voy. Amér. Mérid.*, Ois., p. 225, 1835; Gould and Darwin, *Voy. "Beagle," Birds*, p. 85, 1841; Abbott, *Ibis*, p. 153, 1861; Durnford, *Ibis*, p. 392, 1878; Sharpe, *Cat. Birds Brit. Mus.*, x, p. 610, 1885; Sclater and Hudson, *Argentine Orn.*, i, p. 17, 1888; Oustalet, *Miss. Sci. Cap Horn, Ois.*, p. 77, 1891.

Habitat.—Southern Brazil, Bolivia, and Peru, to Tierra del Fuego; the Falkland Islands.

♂, Useless Bay Settlement, 31st Aug.; ♂, San Sebastian Settlement, 4th Oct.; three eggs, Sara Settlement, 16th Oct.; one egg, Rio McClelland Settlement, 17th Dec., 1904.

Iris—dark brown; bill—brown, shading into yellow at base of lower mandible; legs and feet—flesh colour.

The Correndera Pipit is at once recognizable, being the only member of its genus and family inhabiting the island.

Its discoverer, Azara, immediately associated it with the bird of his native land, to which it is very nearly allied. Of its habits he says:—"Sigue por lo comun las veredas angostas del campo y los caminos con la cabeza levantada, atisvando siempre si viene algun Gavilan. Vive con otra ó sola; y aunque á veces se encuentran quatro ó seis parejas cercanas, no se nota que obren acordes. Quando se les obliga á volár, no dilatan sus vuelos; y es de los páxaros mas comunes en el Paraguay y hasta el Rio de la Plata. Suele muchas veces irse elevando verticalmente ó con poco círculo, y baxando casi á plomo, cantando bastante bien en el descenso; y repetir las subidas y baxadas mucho rato hasta la altura que se pierde de vista; porque siempre sube mas que baxa, y concluye este juguete dexándose caer á plomo. A veces hace un zumbido extraño. El tiempo de sus cánticos y ascensos es el del amor: esto es por Septiembre y Octubre, y rarísima vez canta en el suelo, donde se posa siempre; y jamas le he visto en árbol, sino en muy rara ocasion sobre alguna matilla."

Darwin says:—"It does not live in flocks, is very common, and resembles a true *Alauda* in most of its habits."

What he says of being informed by a sealer that this is the only land-bird on Georgia and South Orkney (lat. 61° S.) applies to another species, since described as *A. antarctica*, whose range appears to be confined to that region.

Capt. Abbott says:—"It leaves the Falkland Islands about



ON THE SLOPES OF THE SIERRA CARMEN SYLVA

the end of April, after having finished breeding; at any rate I have never in all my wanderings seen one of them later than this period of the year. They return to the vicinity of Stanley about September, and breed in the beginning of October, laying three eggs in an open cup-shaped nest at the root of the long grass."

Durnford says of it in Central Patagonia:—"Resident. Common in the valleys and on the hills. In the winter they associate in small parties and frequent the lower lands."

I found this Pipit common in open country, at all altitudes, from sea level to the top of the Sierra Carmen Sylva. Shortly after landing at the end of winter, I shot my first specimen on the bare flats at Useless Bay Settlement, where the only other small land bird to be seen living in similar conditions was *Geositta cunicularia*. In spring and summer it soars high into the air, and has a beautiful song. Geese excepted, the nests are more often found than those of any other bird. A day's ride is productive of three or four at least, with no more effort than alighting to examine the ground when the bird rises in front of one's horse. But it is not easy to discover the nest, unless the exact spot is marked where the bird rose, as this is usually sunk in a hollow, completely masked by grass. The nest is built entirely of fine grasses. In all, I must have seen about thirty nests, with eggs or young. The usual number of eggs is three. I do not remember having seen more than this number. The breeding period seems to be of longer duration than in the case of the majority of birds. My first nest was taken at Sara Settlement, October 16th. As late as about the beginning of January, I found nests with young on the downs to the south of Useless Bay. The egg is of blunt oval shape, greenish white—where ground colour is visible—thickly blotched with vinaceous brown, lighter and somewhat mauve coloured beneath. The three Sara Settlement eggs measure 0·8 inch in length: two are 0·65, one 0·6 inch, in diameter. The egg from Rio McClelland Settlement measures 0·85 by 0·65 inch.

Family HIRUNDINIDÆ

TACHYGINETA MEYENI (Cabanis)

Hirundo leucopyga (*nec. Lichtenstein*), *Meyen, Nova Acta Kaiserliche Leopoldino-Carolinische Deutsche Akad. Nat. Suppl.*, p. 73, pl. x., 1834.

Petrochelidon meyeri, *Cabanis, Museum Heineanum*, l, p. 48, 1850.

Tachycineta meyeri, *Sharpe, Cat. Birds Brit. Mus.*, x, p. 116, 1885.

Hirundo meyeri, *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 49, 1891.

Habitat.—Bolivia, Chili, Southern Patagonia, and Tierra del Fuego.

♀, Rio McClelland Settlement, 22nd Jan.; ♀, 24th Jan., 1905.

Iris—black; bill and legs—drab.

The earliest date I remarked the appearance of Meyen's Martin was 30th October, when I saw a pair on the scrub-covered slopes of the Sierra Carmen Sylva, above San Sebastian Settlement. On that day I also saw my first butterfly (*Tatochila argyrodice*). There were Martins, however, at Rio McClelland Settlement earlier than this, from what Mr. Clarke tells me.

In summer these birds are plentiful everywhere at the lower altitudes, and they have an abundant food supply in the myriads of midges (*Chironomidæ*) and other winged insects which swarm at this season. On horseback there are usually some in attendance, following one to snap at the flies one carries with one, or disturbs by the way.

I observed them breeding in hollow trees in the valley of the Rio McClelland.

ATTICORA CYANOLEUCA (Vieillot)

Golondrina de los timoneles negros, *Azara, Pájaros, Paraguay y La Plata*, ii, p. 508, 1805.

Hirundo cyanoleuca, *Vieillot, Nouv. Dict. d'Hist. Nat.*, xiv, p. 509, 1817; *Gould and Darwin, Voy. "Beagle," Birds*, p. 41, 1841.

Hirundo minuta, *Temminck, Planches Coloriées*, iv, pl. ccix, 1823.



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CHRYSOMITRIS BARBATA

Atticora cyanoleuca, *Durnford, Ibis*, pp. 32, 170, 1877, p. 392, 1878; *Sharpe, Cat. Birds Brit. Mus.*, x, p. 186, 1885; *Sclater and Hudson, Argentine Orn.*, i, p. 33, 1888.

Habitat.—Central America, throughout South America, to Tierra del Fuego.

There is no difficulty in identifying the little Blue-backed Swallow, from its uniformly dark upper surface, its small size, and its habit of flying close to the ground. It is not plentiful as compared with Meyen's Martin. Amongst a hundred of the latter one might perhaps see on an average one or two pairs.

Darwin records this Swallow from Bahia Blanca, in Patagonia.

Durnford says :—"It arrives in the Province of Buenos Ayres at the end of September, generally leaving in March, but on one occasion I observed a pair on 30th April. It always reminds me of the Sand Martin at home. In its habit of flying close to the ground and frequenting the neighbourhood of pools and streams, from which it never wanders far, it is essentially like that bird. It nests in holes in the banks of 'arroyos,' sandpits, and similar localities."

On warm days in the winter, he observed a few at Chupat; but the great majority left at the approach of cold weather.

Family FRINGILLIDÆ

CHRYSOMITRIS BARBATA (Molina)

Fringilla barbata, *Molina, Saggio Storia Naturale, Chili*, p. 247, 1782.

Chrysomitris campestris, *Gould and Darwin, Voy. "Beagle," Birds*, p. 89, 1841.

Chrysomitris magellanica (*nec Vieillot*), *Abbott, Ibis*, p. 154, 1861.

Chrysomitris marginalis, *Cassin, U.S. Astron. Exp.*, p. 181, pl. xvii, 1855.

Chrysomitris barbata, *Durnford, Ibis*, p. 172, 1877; *Sharpe, Cat. Birds Brit. Mus.*, xii, p. 216, 1888; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 99, 1891.

Habitat.—Chili, Patagonia, and Tierra del Fuego ; the Falkland Islands.

♂, Rio McClelland Settlement, 1st Dec.; ♀, 7th Dec.; ♂, 8th Dec., 1904.
Iris—black; bill—grey; legs—dark drab.

The British Museum series of twenty-five are generally lighter coloured than the Tierra del Fuego birds, especially on the lower portion of the breast and the abdomen: the former are ashy white in this region, whereas the latter birds are yellowish green.

This Siskin is quite the finest songbird in the island. It reminds one much of the Goldfinch (*Carduelis elegans*) in habits and cheery twittering song. It is common in forest country where there are open glades of grass-land. It dashes about from tree clump to tree clump, twittering on the wing. It is ever restless, never remaining long in any one place. Much of its time it is in the leafy branches of trees where foliage is thick, to feed on larvæ. Commonly, also, it feeds on plants and grasses on the ground.

Darwin records it from the forests of Tierra del Fuego, and Valparaiso.

In the Falkland Islands it is apparently rare. Capt. Abbott states the only instance he knows of its occurrence there was a flock of five in a garden near Stanley in August 1860, one of which was killed and is in Dr. Sclater's collection.

Durnford says :—"They are generally found in flocks, and in the neighbourhood of trees or low scrub. They have a habit of hanging, Tit-like, from a twig. Their food consists of small seeds, and, judging from their fondness for the large thistle, chiefly of the seed of that plant."

The stomachs of all specimens examined by me contained phytophagous larvæ.

ZONOTRICHIA CANICAPILLA (Gould)

Rusty-collared Finch, *Latham, Synopsis Birds, Suppl.*, ii, p. 170, 1787.

Zonotrichia canicapilla, *Gould and Darwin, Voy. "Beagle," Birds*, p. 91, 1841; *Durnford, Ibis*, p. 33, 1877, p. 393, 1878; *Sclater, Ibis*, pp. 46-48, pl. i, 1877; *Sharpe, Cat. Birds Brit. Mus.*, xii, p. 609, 1888; *Sclater and Hudson, Argentine Orn.*, i, p. 59, 1888; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 95, 1891.

Habitat—Patagonia and Tierra del Fuego.

Eggs, Rio McClelland Settlement, 9th Dec.; 1 egg, 17th Dec., 1904; ♀, Punta Arenas, 17th Feb., 1905.

Iris—brown; bill—grey; legs—drab.

The Song Sparrow is a common bird, especially in scrub-covered country. It breeds in the island, but I am not sure whether it is entirely resident. The first specimen I saw was one shot near Useless Bay Settlement, about the middle of September. On moving to San Sebastian Settlement a little later, I found it fairly plentiful on the scrub-covered slopes of the Sierra Carmen Sylva, and remarked an increase in numbers from day to day as spring set in.

Common as it is, I did not set myself to obtain a skin until my return to Punta Arenas.

It has a pretty plaintive song. Its favourite haunt is brush-wood, and the outskirts of forest. It perches and sings on the tops of bushes; at other times it lurks in their darkest depths.

Darwin says:—"It is not uncommon in Tierra del Fuego, wherever there is any open space. Of the few birds inhabiting the desert plains of Patagonia, this is the most abundant. At Port Desire I found its nest: egg about .83 in length; form somewhat more elongated than in that of the last species; colour, pale green, almost obscured by minute freckles and clouds of pale dull red."

Durnford says of it in Patagonia:—"Abundant, and often to be seen hopping familiarly about the colonists' cottages. It nests

amongst coarse grass or brushwood, making an unpretending structure of the former material, the finer fibres being placed towards the interior. It lays four eggs, measuring $\cdot 8$ by $\cdot 6$ of an inch, of a pale green colour, thickly striated with light reddish brown spots, running into each other, and most numerous at the larger end. . . . It has a pretty little warble, which it sings in the evening and during the night when the moon is shining ; and often whilst lying awake under my 'Yergas' and Guanaco robe, this Sparrow kept up its song within a few yards of my head."

On the downs to the south of Useless Bay I obtained a nest with two eggs ; also a single egg. The nest I have was placed in a hollow in open ground, and entirely constructed of grasses. The eggs are of blunt oval shape ; pale green, thickly mottled with reddish brown ; markings horizontal with axis and having the appearance of splashes. All three examples measure $0\cdot 85$ by $0\cdot 6$ inch.

The stomach of this specimen contained insects.

PHRYGILUS GAYI (Eydoux et Gervais)

Fringilla gayi, *Eydoux et Gervais, Mag. de Zool.* 1834, *Cl.* ii, *Aves*, pl. xxiii, 1834 ; *Gould and Darwin, Voy. "Beagle," Birds*, p. 93, 1841.

Fringilla formosa, *Gould and Darwin, Voy. "Beagle," Birds*, p. 93, 1841.

Phrygilus gayi, *Sharpe, Cat. Birds Brit. Mus.*, xii, p. 781, 1888 ; *Sclater and Hudson, Argentine Orn.*, i, p. 52, 1888 ; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 84, 1891.

Habitat.—Chili, Patagonia, and Tierra del Fuego.

♂, Rio McClelland Settlement, 26th Nov., 1904 ; ♂, 12th Jan. ; ♀, Punta Arenas, 17th Feb., 1905.

Iris—brick-red ; bill—light grey, dark points ; legs—light drab.

My first acquaintance with Gay's Finch was in the forest country to the south of Useless Bay. A male pecking vigorously



West, Newman. unsp.

PHRYGILUS GAYI

at a raw sheep's head fell a victim to the '410—an act of necessity, yet of regret on my part. The following morning I saw the female with her head in a beef bone within a few yards of me, but could not bring myself to kill her. A pair became residents on the premises of the manager's house at Rio McClelland Settlement. They appeared on the scene as soon as it was occupied, and remained during my two months' stay. Much as I desired a female, I had not the heart to kill one of the pair. Ultimately, I secured one on the mainland in the forest behind Punta Arenas.

In its first state of nature, this handsome Finch inhabits forest depths and outskirts. I have never seen it in open country. It possesses an individuality entirely its own. It is friendly to man, and frequents human habitations where it subsists largely—if not wholly—on refuse.

The merry habits and untiring energy of this Finch make it a most interesting pet at large. The pair at Rio McClelland Settlement used to exploit a refuse pit at the back of the house. It devolved on my host Clarke or myself to light the fire, and make tea in the early mornings. However early the avalanche of ashes into the pit, it dislodged the Finches, to dash out and return when the dust had cleared. Other dependents on the pit were a family of Sparrows, but these were never allowed there by the Finches until their wants had been satisfied. If it came on wet, they took shelter in a pile of dead forest wood brought in for kitchen use. They never sang about the house, beyond the merest twitter when taking wing.

In the forest, this Finch has a remarkable song—“*Cha-che-chi: Cha-che-chi: che-chi*”—the first two notes of the three in the same key, the third higher, and the second of the two also higher than the first.

In the stomachs of the male and female shot in the forest I found—in one case grass seeds and gravel, in the other gravel only.

PHRYGILUS MELANODERUS (Quoy et Gaimard)

Emberiza melanodera, *Quoy et Gaimard, Voy. "Uranie," Zool. i,*
p. 109, 1824.

Chlorospiza melanodera, *Gould and Darwin, Voy. "Beagle," Birds,*
p. 95, pl. xxxii, 1841.

Phrygilus melanoderus, *Abbott, Ibis, p. 153, 1861; Sharpe, Cat.*
Birds Brit. Mus., xii, p. 786, 1888.

Habitat—Patagonia, and Tierra del Fuego; the Falkland Islands.

♂ ♀, Useless Bay Settlement, 10th Sept.; ♀, Sara Settlement, 11th Oct., 1904.

Iris—brown, so narrow scarcely distinguishable; bill—horn colour; legs—black.

This Finch is a difficult bird to determine in its varying phases of plumage, all the more so as its very near ally *P. xanthogrammus* so closely resembles it as to be scarcely distinguishable except by its greater size. It may help matters if I give a full description of my pair of Tierra del Fuego birds in perfect condition, illustrated by a plate.

♂, General colour above, ashy grey; feathers on back and rump barred with green; lesser wing coverts, bright olive yellow, slightly tipped with grey; median coverts canary yellow, tipped with grey; primary quills white, outer web canary yellow, shading into dusky brown at tips, more especially on inner portion; secondaries similarly coloured, but darker, with whitish edges at the ends, tertials with black on the inner web towards the tips; alula and tips of primary coverts black; centre feathers of tail green, becoming grey at tips; outer feathers canary yellow, shading into white at tips, the feathers nearing the centre having the tips of the inner web almost black; lores black, bordered by a white line, including the eye, the white line on centre of throat somewhat yellow; sides of breast and flanks ashy grey; breast canary yellow, shading into white on the vent and under tail coverts, the latter yellow at the base; under wing coverts and axillaries like the breast. Total length, 6.0; culmen, 0.55; wing, 3.6; tarsus, 0.9; tail, 2.45 inches;

♀, General colour, brownish grey, feathers of crown and back



PHRYGILUS MELANODERUS

West, Newman imp

strongly mottled with black centres ; scapulars like the back ; lesser wing coverts yellowish green, with whitish edges forming a bar ; median coverts like the back, with outer edges white, forming a second bar ; primary coverts brown, upper outer portion of web pale yellow ; primaries greyish brown, outer edges canary yellow, becoming paler towards the tips ; upper tail coverts same as back ; centre feathers of tail greenish brown, shading into dark brown towards the tips ; outer feathers canary yellow at base, shafts brown, inner portion of web brown, increasing in extent towards middle feathers ; feathers of fore-neck and sides of throat streaked with black ; centre of throat sandy white ; sides of breast and flanks streaked with black, the latter more strongly ; breast yellow, shading into whitish on abdomen and under tail coverts ; under wing coverts and axillaries pale yellow ; under tail coverts white, at the base yellow. Total length, 5·6 ; culmen, 0·55 ; wing, 3·3 ; tarsus, 0·9 ; tail, 2·1 inches.

I found this Finch common on open grassland, in flocks of from half-a-dozen to twenty or more. My pair from Useless Bay Settlement were in company with another pair, and both birds were killed by the same ·410 cartridge. So nearly does the general colouring of this Finch assimilate its environment on the ground, that, when motionless, only the black throat barred with white catches the eye. It is one of the prettiest birds met with in the island, but beyond this has no remarkable personality—as in the case of *P. gayi*. It is often met with in settlements, yet manifests no attachment for man. Beyond the merest twitter usually uttered on the wing, it has no song. It is apparently granivorous ; the stomachs of my three examples contained grass seeds.

Darwin speaks of this Finch as “extremely abundant in large flocks in the Falkland Islands.”

There, also, Abbott found it “plentiful everywhere, summer and winter.” He says :—“It breeds in the latter end of September and beginning of October, laying three eggs in a nest situated under the shelter of a tuft of grass. In the winter the

plumage of the male loses all its rich colour and assimilates to that of the female. Of the second so-called species of this genus, *Phrygilus xanthogrammus*, I know nothing, and I do not believe it different from the former."

Family ICTERIDÆ

CURÆUS ATERRIMUS (Kittlitz)

Turdus curæus, *Molina, Saggio, Storia Naturale Chili*, p. 345, 1782.

Sturnus aterrimus, *Kittlitz, Mém. Acad. Sc. St. Pétersb.*, p. 467, pl. ii, 1835.

Psarocolius curæus, *Cassin, U.S. Astron. Exp.*, ii, p. 178, pl. xv, 1855.

Curæus aterrimus, *Sclater, Cat. Birds Brit. Mus.*, xi, p. 354, 1886;
Oustalet, Miss. Sci. Cap Horn, Ois., p. 101, 1891.

Habitat.—Chili, Patagonia, and Tierra del Fuego.

♀, San Sebastian Settlement, 4th Oct., 1904.

Iris—greyish black; bill and legs—black.

The earliest British collector appears to be Capt. King, as there is a specimen of his from Chili in the British Museum.

Darwin does not record it, nor does Durnford.

The Black Starling is a common bird in the scrub-covered well-watered slopes of the Sierra Carmen Sylva, also in similar country elsewhere. It is resident the entire year. I was surprised to find some British settlers eating it in the belief that it is a "Blackbird"—as of course it is, in colour at any rate. Usually it is met with in companies of half-a-dozen or more. It perches freely on bushes, and is a vociferous songster. If one of a company takes wing, all follow; and again congregate closely, singing vigorously. They have a habit of coming to one from a distance, and sometimes follow one in this way again and again. This is nothing more than friendly curiosity; for they alight quite close in the most confiding manner, and at once burst out into song—one bird leading off and all joining in.

On one occasion, I remember sitting down amongst scattered bushes in a steep grassy valley to get my hand camera into position to take a picture; and, as I was waiting for the light to



West, Newman imp.

TRUPIAXIS MILITARIS

improve, a flock came and perched quite close all round me—some on bushes, some on the ground—and remained while I was there, singing lustily.

Principally this Starling seeks its subsistence in moist, spongy ground. Larvæ and mature insects are its food.

TRUPIALIS MILITARIS (Linnæus)

Sansonnet des Iles Malouines, *Pernety, Voy. Iles Malouines*, ii, 569, pl. vii, 1769.

Sturnus militaris, *Linnæus, Mantissa*, p. 527, 1771.

Étourneau des Terres Magellaniques, *Buffon, Hist. Nat. Ois.*, iii, p. 220, pl. cxiii, 1774.

Sturnella militaris, *Gould and Darwin, Voy. "Beagle," Birds*, p. 110, 1841; *Cassin, U.S. Expl. Exp.*, ii, p. 179, pl. xvi, 1855; *Abbott, Ibis*, p. 153, 1861; *Durnford, Ibis*, p. 33, 1877, p. 394, 1878.

Trupialis militaris, *Sclater, Cat. Birds Brit. Mus.*, xi, p. 356, 1886; *Sclater and Hudson, Argentine Orn.*, i, p. 104, 1888; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 103, 1891.

Habitat—Chili, Patagonia, and Tierra del Fuego; the Falkland Islands.

♂, San Sebastian Settlement, 27th Oct.; ♂, 30th Oct., 1904.

Iris—brown; bill—horn colour; legs and feet—light grey.

The Military Starling with its brilliant scarlet breast is one of the few birds specially noticed by Pernety in the Falkland Islands in 1764. He alludes to it as "une espece de Sansonnet, le dessous de cou & le ventre d'un très beau rouge, qui tient cependant un peu de la couleur de feu," and gives a woodcut of the bird itself.

Hitherto, Punta Arenas appears to have been the most southerly point of its known range.

Darwin records it from 31° S. on the east coast of the mainland to the Falkland Islands, and from the Strait of Magellan up the west coast as far as Lima, from which it seems he did not note any difference between this and the more northerly form, *T. defilippi*—distinguishable by smaller size, and having the under wing coverts black instead of white.

The female is stated by Dr. Sclater to be similar in colouring to the male. I have handled several, and they appear to me generally paler in the scarlet of the head, breast, and wing—in some cases almost white.

The Military Starling is a conspicuous bird, being—as it is—such a departure in colouring in a world where all else is generally so subdued in tone. Scrub-covered hills and valleys and the outskirts of forest are its haunt. The scarlet breast is visible two hundred yards away. The ordinary number seen is a pair, or at most four or five together. It is very much a Starling in its ways, also in its limited song. It runs hither and thither on the ground, nodding and bobbing, feeding for dear life. The flight is powerful but somewhat heavy. The song—if song it can be called—is extraordinarily laboured. It is usually uttered from a tree top or bush especially towards evening, and may be imitated by inflating the lungs with air and expelling it through pursed-up lips in a long drawn expiring whistle — “*W-h-i-i : y-o-o-o.*” It takes some effort on the part of the bird to deliver it : the throat can be seen expanding thirty yards away. I found this Starling unusually hard lived. It has the hardest cranium I have seen in a bird of its size ; and a powerful bill, sharp claws, and tough skin.

Capt. Abbott says it is very common in the Falkland Islands. “It sits on a bush,” he adds, “and sings very sweetly on a summer’s morning. It begins to breed in the first week in October. The nest is built amongst long grass or rushes. It is rather deep, but open at the top, and not domed over, and generally contains three eggs.”

Durnford says:—“It is of all birds, excepting water-birds and reed-living birds, the surest indicator of the presence of water in the thirsty plains of Patagonia, never being found far from this element, and being consequently of great use to travellers.”

There were several ticks (*Ixodes thoracicus*)* on the head of my second example.

All specimens dissected by me contained coleoptera.

* Thus determined for me by Mr. A. S. Hirst.—R. C.



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West, Newman imp.

AGRIORNIS LIVIDA

Family TYRANNIDÆ

AGRIORNIS LIVIDA (Kittlitz)

Thamnophilus lividus, Kittlitz, *Mem. l' Acad. St. Petersb.*, ii, p. 465, 1835.

Tyrannus gutturalis, Eyndoux et Gervais, *Voy. "Favorite," Ois.*, p. 32, pl. xi, 1839.

Pepoaza livida, D'Orbigny, *Voy. Amér. Mérid., Ois.*, p. 351, 1835.

Agriornis gutturalis, Gould and Darwin, *Voy. "Beagle," Birds*, p. 56, 1841.

Agriornis livida, Sclater, *Cat. Birds Brit. Mus.*, xiv, p. 4, 1888.

Habitat.—Chili, Patagonia, and Tierra del Fuego.

♂ Useless Bay Settlement, 8th Sept.; ♀ San Sebastian Settlement, 27th Oct., 1904.

Iris—brown; bill and legs—dark brown.

The Great Tyrant has been collected by King, Darwin, and Lord Byron in Central Chili—the furthest south it has been hitherto recorded. There, it has hitherto been held to give place to the smaller *A. striata* discovered by Darwin in Southern Patagonia. It now proves to occur after what appears to be a gap in its distribution.

The British Museum possesses a series of eight from various localities in Chili, and ten from Northern Patagonia recently acquired.

The measurements recorded by Dr. Sclater for this species are :—

Length 9·5, wing 5·0, tail 4·5 inches.

My Tierra del Fuego birds measure :—

♂ length 11·8, culmen 1·25, wing 5·8, tarsus 1·55, tail 4·9 inches.

♀ „ 11·6, „ 1·25, „ 5·5, „ 1·5, „ 4·6 „

They are olive-brown above, rather than “cinereous” like the Chili birds.

Northern Patagonian specimens are in agreement with the birds from Tierra del Fuego.

The bird, therefore, of Patagonia and Tierra del Fuego, amounts to a distinct race.

The acumination of the two outer primaries at once distinguishes the adult male. There is some little difference in the colouring of this pair: the male shows less white on the outer web of the primaries and secondaries; the breast and abdomen have not the decided cinnamon tinge; the outer web of the outer tail feathers shows more yellowish white.

This Tyrant is not common. I saw four, at odd times, at long distances from one another. It is a solitary, silent creature, of mysterious habit, appearing and vanishing as unexpectedly as rapidly. It frequents thick scrub, such as the dense growth of *Chilietrichum amelloideum* in the Sierra Carmen Sylva where I shot my second example.

D'Orbigny records it "excessivement commune aux environs de Valparaiso."

Darwin says nothing of its habits beyond that "he was assured by the inhabitants that it is a very fierce bird, and that it will attack and kill the young of other birds."

However this may be, the stomachs of my specimens contained only coleoptera; but the large powerful bill, with its remarkable hook at the extremity, is certainly intended to cope with other prey than these.

MYIOTHERETES RUFIVENTRIS (Vieillot)

Pepoaza vientre roxizo, Azara, *Pájaros, Paraguay y La Plata*, ii, p. 172, 1805.

Tyrannus rufiventris, Vieillot, *Nouv. Dict. d'Hist. Nat.*, xxxv, p. 93, 1819.

Xolmis variegata, Gould and Darwin, *Voy. "Beagle," Birds*, p. 55, pl. xi, 1841.

Pepoaza variegata, D'Orbigny, *Voy. Amér. Mérid., Ois.*, p. 349, pl. xxxix, 1835.



West, Newman imp.

MYIOTHERETES RUFIVENTRIS

Myiotheretes rufiventris, *Durnford, Ibis*, p. 175, 1877, p. 394, 1878; *Sclater, Cat. Birds Brit. Mus.*, xiv, p. 8, 1888; *Sclater and Hudson, Argentine Orn.*, i, p. 112, 1888; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 51, 1891.

Habitat.—Bolivia and Paraguay, to Patagonia, and Tierra del Fuego.

♂ Useless Bay Settlement, 3rd Nov., 1904.

Iris—brown; bill and legs—black.

All expeditions recording the handsome Chocolate Tyrant have found it uncommon in all localities. This was my experience. In six months I saw two solitary examples—one in the Sierra Carmen Sylva, some twelve miles to the south of Useless Bay Settlement; the other on the Cheena Creek plateau in the same country as that frequented by *Attagis* and *Eudromias*. Its haunt is high black-looking peaty wind-swept moorland, where there are stretches of quaking bog, and in the firmer ground no other vegetation than hummocks of *Azorella*, scattered grass tufts, and the crowberry (*Empetrum nigrum*). It is a remarkable bird, not likely to be overlooked by anyone who encounters it; not only is its colouring conspicuous, but its habits are such as attract attention. It takes wing readily, flies low, skimming the ground, and perches on whatever elevation is available—hummock or stone—challenging one as it were by fluttering its wings. It runs along the ground in sharp rushes, pulling up with its head in the air. It reminds one much of the Fieldfare.

Azara met with what he believed to be these birds at Rio Santa Lucia, in Uruguay, and he thus characteristically describes their habits:—"Caminaban con soltura y ligereza por los campos, que allí son muy pelados, cogiendo insectos en el suelo. Alguna vez subian sobre las pequeñas motas de tierra, porque allí no habia varillas ni arboles. Su volar es descansado."

D'Orbigny is for himself exceedingly brief, but to the point, in disposing of so remarkable a bird:—"Ses habitudes

nous parurent analogues à celles des Moteux : elle relevait la queue chaque fois qu'elle se posait et qu'elle s'envolait. Comme il n'y a pas de buissons dans le lieu qu'elle habite, elle se perche sur les points culminans, tout en étant bien plus marcheuse que les espèces précédentes, dont pourtant elle a le vol et les allures."

Darwin's note at once serves to identify it:—"It feeds in small flocks, often mingled with the *Icteri*, Plovers, and other birds on the ground. Its manner of flight and general appearance never failed to call to my recollection our cunning Fieldfares (*Turdus pilaris*), and I may observe that its plumage (in accordance with these habits) is different from that of the rest of the genus. I opened the stomachs of some specimens killed at Maldonado, and found in them seeds and ants. At Bahia Blanca I saw these birds catching on the wing large stercovorous coleoptera; in this respect it follows the habits, although in most others it differs from those of the rest of its tribe."

Durnford says of it in the Province of Buenos Ayres:—"A winter visitor, but rare. In the air its long, pointed, almost Plover-like wing, and on the ground its bold upright position are sufficient to establish its identity. Its habits seem generally like those of the other *Tænioptera*; and it is always in a restless state, flitting from a clod of earth to the top of a thistle, or making a sudden dart at some passing insect. The stomach of the one I shot contained a large hairy caterpillar and some remains of coleoptera."

Durnford often found it consorting with *Oreophilus ruficollis*.

The stomach of my specimen contained coleoptera.

TÆNIOPTERA PYROPE (Kittlitz)

Muscicapa pyrope, Kittlitz, *Mém. l'Acad. St. Petersb.*, i, p. 191, pl. x, 1831.

Pepoaza pyrope, *D'Orbigny, Voy. Amér. Mérid., Ois.*, p. 348, 1835.

Xolmis pyrope, *Gould and Darwin, Voy. "Beagle," Birds*, p. 55, 1841.

Tænioptera pyrope, *Sclater, Cat. Birds Brit. Mus.*, xiv, p. 15, 1888;
Oustalet, Miss. Sci. Cap Horn, Ois., p. 52, 1891.

Habitat.—Chili, Patagonia, and Tierra del Fuego.

♀, Rio McClelland Settlement, 28th Nov.; ♂, 8th Dec., 1904.

Iris—red; bill and legs—black.

The measurements recorded by Dr. Sclater for the Grey Tyrant are :—

Length 7·2, wing 4·0, tail 3·2 inches,

for both sexes, which are generally in agreement with the series of twenty-five in the British Museum, including the "Challenger" specimen from the Strait of Magellan, and Lord Byron's and Berkeley James's specimens from Chili.

The Tierra del Fuego birds, however, are considerably larger, for they measure :—

♂ length 8·5, wing 4·8, tail 3·9 inches.

♀ length 7·7, wing 4·2, tail, 3·4 ,,

The male has the two outer primaries very finely acuminate for over 0·5 inch.

This bird is fairly common on the outskirts of forest to the south of Useless Bay, and seems particularly partial to barberry thorn thickets. It has a musical note, and is very tame. Invariably I have found it in pairs. In appearance, flight, and habit, it reminded me much of the Black-and-White Shrike of Central Africa. What Darwin observes, of its "generally taking its station on the branch of a tree, on the outskirts of the forest," and "when thus perched, usually at some height above the ground, sharply looks out for insects passing by, which it takes on the wing," exactly describes its habit.

The stomachs of my specimens contained coleoptera—chiefly *Rhyncophora*.

MUSCISAXICOLA MACLOVIANA (Garnot)

Sylvia macloviana, Lesson et Garnot, *Voy. "Coquille," Zool.*, i, p. 540, 1826.

Muscisaxicola mentalis, D'Orbigny, *Voy. Amér. Mérid., Ois.*, p. 355, pl. xli, 1835.

Muscisaxicola macloviana, Gould and Darwin, *Voy. "Beagle," Birds*, p. 83, 1841; Abbott, *Ibis*, p. 154, 1861; Sclater, *Cat. Birds Brit. Mus.*, xiv. p. 56, 1888; Sclater and Hudson, *Argentine Orn.*, i. p. 133, 1888; Oustalet, *Miss. Sci. Cap Horn, Ois.*, p. 55, 1891.

Habitat.—Peru and Bolivia, to Tierra del Fuego; the Falkland Islands.

♂, San Sebastian Settlement, 22nd Sept.; ♀, 27th Oct., 1904.

Iris—brown; bill and legs—black.

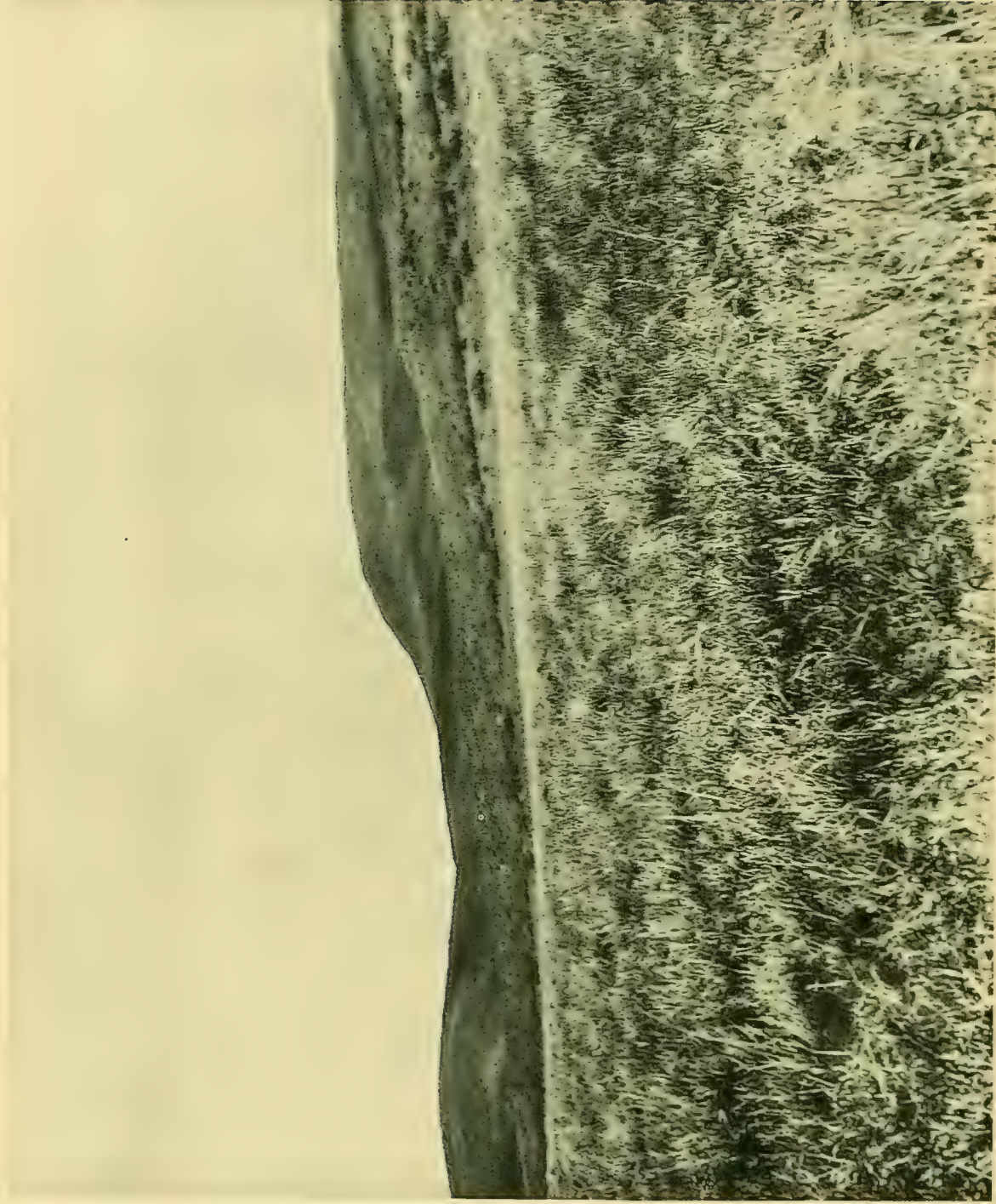
Formerly, two species were admitted in this bird—*M. mentalis*, of the mainland, and *M. macloviana*, of the Falkland Islands, the specific difference being based on the larger and paler form of the latter.

My Tierra del Fuego birds agree with the mainland form.

Dr. Sclater establishes the sexual difference, that in the male the chin spot is more marked than in the female. In this pair there is no such difference; the male, however, is a little larger.

This Bird was obtained by Darwin in Northern Patagonia, Tierra del Fuego (locality unrecorded), East Falkland Island, Chiloe, and Central and Northern Chili; and by the French Mission to Cape Horn as far south as Staten Island and Hardy Island in the region of False Cape Horn.

Bare mountain tops are one of its favourite haunts. It also frequents the hummocky flats bordering the sea shore. It is the one living creature I remarked on the bald, wind-swept summit of Nose Peak, 2,225 feet, after eight hours' severe going through well-nigh impassable forest working by compass bearing. My first specimen was shot at 1,000 feet on the Sierra Carmen Sylva, amidst patches of snow gradually



A PEAK IN THE SIERRA CARMEN SYLVA
A HAUNT OF MUSCISAXICOLA MACLOVIANA

thawing in spring; the second, at about 500 feet, a month later. In spring and summer I found it very numerous on the flats between Useless Bay Settlement and the sea shore. It was then tame, whereas on the mountains it was so wild as to be almost unapproachable with a collector's gun. It is remarkable for the habit of perching on hummocks, and flying on ahead of one innumerable times. On perching, it flutters its wings. It runs along the ground in short sharp rushes, carrying its head high in the air, very much after the manner of the Wheatear (*Saxicola ænanthe*).

Darwin says :—"It frequents open places, so that in wooded countries it lives entirely on the sea beaches, or near the summits of mountains where trees do not grow. In the excessively sterile upper valleys of the Cordillera of Northern Chili I met with this bird, even at a height of little less than 10,000 ft., where the last traces of vegetation occur, and where no other bird lives. It generally moves about in very small flocks, and frequents rocky streams and marshy ground; it hops and flies from stone to stone, very much after the manner of our Whinchat (*Motacilla rubetra*); but when alighting it frequently expands its tail like a fan."

In the Falkland Islands, Abbott found it not very common and generally near the shore. He says :—"It is very much like a Wheatear (*Saxicola*) in its habits. During the breeding season it resorts to the stone-runs, or watercourses, where it breeds."

CENTRITES NIGER (Boddaert)

Alouette noire de la Encenada, Buffon, *Hist. Nat. Ois.*, v, pl. dccxxxviii, 1778.

Alauda nigra, Boddaert, *Table, Planches Enluminées, Hist. Nat. d'Aubenton*, p. 46, 1783.

Alondra de la espalda roxa, Azara, *Páxaros, Paraguay y La Plata*, ii, p. 15, 1805.

Anthus fulvus, D'Orbigny, *Voy. Amér. Mérid.*, Ois., p. 223, 1835.

Anthus variegatus, *Eydoux et Gervais*, *Zool. Voy. "Favorite,"* v, *Ois.*, p. 38, pl. xv, 1839.

Muscisaxicola nigra, *Gould and Darwin*, *Voy. "Beagle," Birds*, p. 84, 1841.

Centrites niger, *Durnford*, *Ibis* p. 395, 1878; *Sclater*, *Cat. Birds Brit. Mus.*, xiv, p. 61, 1888; *Sclater and Hudson*, *Argentine Orn.*, i, p. 134, 1888; *Oustalet*, *Miss. Sci. Cap Horn*, *Ois.*, p. 57, 1891.

Habitat—Chili and Bolivia, to Tierra del Fuego.

♂, San Sebastian Settlement, 22nd Sept.; ♀, 2nd Oct.; ♀, 4th Oct.; Eggs, Rio McClelland Settlement, 14th Dec.; 21st Dec.; Cheena Creek Settlement, Dec., 1904.

Iris—dark brown; bill and legs—black.

The Chestnut-backed Tyrant is a summer visitor, arriving at the end of September, and breeding in the island. The males appear in advance of the females: they are also the first to leave. The first specimen I observed was a male at San Sebastian, September 22nd, on which day, and subsequent days, I saw several more, but never a female until October 1st, then a single example. Later, females became as numerous as males. At the end of summer—in January and February—at Rio McClelland, numbers of females were to be seen, but rarely a male.

To account for this has puzzled me.

Durnford's experience in Central Patagonia seems to have been somewhat similar, as he says:—"Males of this species were common throughout September and during the first few days of October. On the 5th of the latter month I observed the first females, which gradually increased in numbers."

This little bird is extremely common in open country, whether on the flats or in the hills at moderate altitudes. I have seen it in the Sierra Carmen Sylva up to 1,000 feet. In warm weather it frequents the sea shore, even down to low water mark to feed on the insects swarming in myriads over the sea-weed. Whether in settlements or in uninhabited tracts it is a familiar object



West, Newman imp

CENTRITES NIGER

in one's daily life. It plainly manifests attachment for man. Walking or riding, it is usually in attendance, flitting from grass tuft to grass tuft, snapping at insects, and flying on by short stretches to keep pace. Occasionally I have observed it pecking at scraps of meat in the neighbourhood of houses.

The life habits are thus described by Azara :—" Vuela con ligereza, es pronta en sus movimientos, corre con celeridad, y la he visto coger moscas en el suelo y en el ayre dando vuelitos como de una vara. Alguna vez se posa en las varillas, y casi siempre en el suelo ; prefiriendo lo limpio, como son caminos, corrales, patios grandes y orillas de lagunas. Lo he visto solo, á pares, y en bandadas de hasta 30."

D'Orbigny says :—" Elle préfère soit les sentiers battus, soit les ornières, où tantôt elle court avec vitesse, tantôt marche gravement, sans jamais s'inquiéter des personnes qui s'approchent d'elle."

Darwin says :—" It is everywhere common ; it is a quiet, tame, inoffensive little bird ; it lives on the ground, and frequents sand dunes, beaches, and rocky coasts which it seldom leaves ; the broad shingly beds of the rivers in Chili have, however, tempted it inland, together with *Opetiorhyncus*."

Previous accounts of its breeding habits, and descriptions of the egg, are at variance.

According to Darwin, "it builds in low bushes." Oustalet describes the nest obtained by Sauvinet as "placé sur le sol, entre des chaumes, et ses parois, assez épaisses et faites de lichens et de racines entrelacés, étaient tapissées intérieurement avec des plumes parmi lesquelles j'ai reconnu facilement des plumes de Bernaches."

All the nests I have seen have been sunk in depressions in the ground, in one case under a bush in addition. I obtained three nests containing respectively four, three, and four eggs. A fourth nest, containing young and one addled egg, was not preserved. The nests I have vary somewhat in material, also in massiveness of structure : the first is entirely

of fine grasses; the second of massive stalks of a composite plant (*Perezia recurvata*) lined with hairs and feathers; the third resembles the first, but contains many more feathers—those of *Chloephaga rubidiceps*—so loosely put in as hardly to possess any cohesion.

In the Catalogue of Birds' Eggs in the British Museum, the eggs are said to be of "blunt oval shape, and slightly glossy. They are greyish white, densely freckled with greyish brown and lavender. They measure from .76 to .83 in. in length, and .6 in. in breadth." The series from which this description is taken, consists of two sets, of three each, from the Berkeley James' collection from Central Chili; and these, I think, there can be no doubt are the eggs of *Anthus correndera*.

The eggs of *Centrites* are smaller, and very differently coloured. They are of blunt oval shape, of clear white colour, spotted very sparsely over the entire surface with dark rusty red, the spots generally inclining to form a ring at the larger end. They measure from 0.7 to 0.75 inch in length, and from 0.55 to 0.6 inch in breadth. The eggs of each nest show remarkable uniformity in size. In the case of the first, all four measure 0.75 by 0.55 inch; in that of the second, all three measure 0.75 by 0.6 inch; in that of the third, three measure 0.75 by 0.6, 0.75 by 0.55, and 0.7 by 0.55 inch—the fourth having unfortunately been blown from my hand by the wind and broken.

ANÆRETES PARULUS (Kittlitz)

Muscicapa parulus, Kittlitz, *Mem. l'Acad. Imp. des Sci. St. Petersb.*, p. 190, pl. ix, 1831.

Culicivora parulus, D'Orbigny, *Voy. Amér. Mérid., Ois.*, p. 332, 1835.

Serpophaga parula, Gould and Darwin, *Voy. "Beagle," Birds*, p. 49, 1841.

Anæretes parulus, Durnford, *Ibis*, p. 34, 1877, p. 395, 1878; Sclater, *Cat. Birds Brit. Mus.*, xiv, p. 106, 1888; Sclater and Hudson, *Argentine Orn.*, i, p. 141, 1888.



West, Newman imp.

ANÆRETES PARULUS

Habitat.—Ecuador, Peru, and Bolivia, to Tierra del Fuego.

♂, Rio McClelland Settlement, 28th Nov.; ♀, 24th Dec., 1904; ♂, 4th Jan., 1905.

Iris—silver grey; bill and legs—dark grey.

Wide as is the range of the little Tit Tyrant, it is remarkably uniform in plumage: forty examples in the British Museum covering its entire area do not appreciably differ from one another.

However small and retiring by nature, it has a unique personality amongst the birds of the island, and it resembles nothing else.

It is not common. I saw only about eight all told, and never more than a pair together. It is essentially an inhabitant of the forest, especially thorn scrub on the outskirts. Its habits in feeding are quite those of the Long-tailed Tit (*Acredula*). It clings closely to the branches, working its way in and out in search of insects. The black currant (*Ribes magellanicum*) and the barberry thorn (*Berberis buxifolia*) are favourite trees. Its note is a shrill chirp.

D'Orbigny says of it, faithfully to life :—" On la rencontre toujours par couples, dans tous les lieux couverts de buissons épineux et épais, près des ravins et sur les coteaux, où elle est sédentaire; elle sautille avec vivacité et gentillesse des basses branches aux branches supérieures des buissons, en s'y cramponnant, en enclinant son corps dans tous les sens, et paraissant se replier comme un serpent pour en parcourir toutes les parties, tandis qu'elle cherche les petits insectes dont elle se nourrit. Ses mœurs sont familières; elle s'approche des habitations, et se dérange rarement lorsqu'on passe près d'elle; et si elle s'envole, c'est d'un vol court, léger et saccadé, pour aller se poser tout au plus à vingt mètres de la, sans jamais s'élever au-dessus du sol. Toujours par couples, les deux Culicivores, qui s'éloignent peu, se répondent constamment par un petit cri et paraissent on ne peut plus unis."

Darwin says :—" Its specific name is very well chosen,

as I saw no bird in South America whose habits approach so near to those of our Tomtits (*Parus*). It frequents bushes in dry places, actively hopping about them, and sometimes repeating a shrill cry; it often moves in small bodies of three or four together."

Durnford found it rare in Patagonia. He observed two pairs amongst thick bushes, and obtained a male and female. He took a nest on the 7th November from a thick thorn bush, about three feet from the ground, composed of grass, warmly lined with feathers, and containing two eggs, white in colour, and measuring 0·6 by 0·4 inch.

The French Mission to Cape Horn do not record it.

ELAINEA ALBICEPS (D'Orbigny et Lafresnaye)

Muscipeta albiceps, *D'Orbigny, Voy. Amér. Mérid., Ois.*, p. 319, 1835;
D'Orbigny et Lafresnaye, Mag. de Zool., p. 47, 1837.

Myiobius albiceps, *Gould and Darwin, Voy. "Beagle," Birds*, p. 47, 1841.

Elainea griseogularis, *Sclater, Pro. Zool. Soc.*, pl. cxlvi, 1858.

Elainea albiceps, *Durnford, Ibis*, p. 60, 1878; *Sclater, Cat. Birds Brit. Mus.*, xiv, p. 141, 1888; *Sclater and Hudson, Argentine Orn.*, i, p. 145, 1888; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 60, 1891.

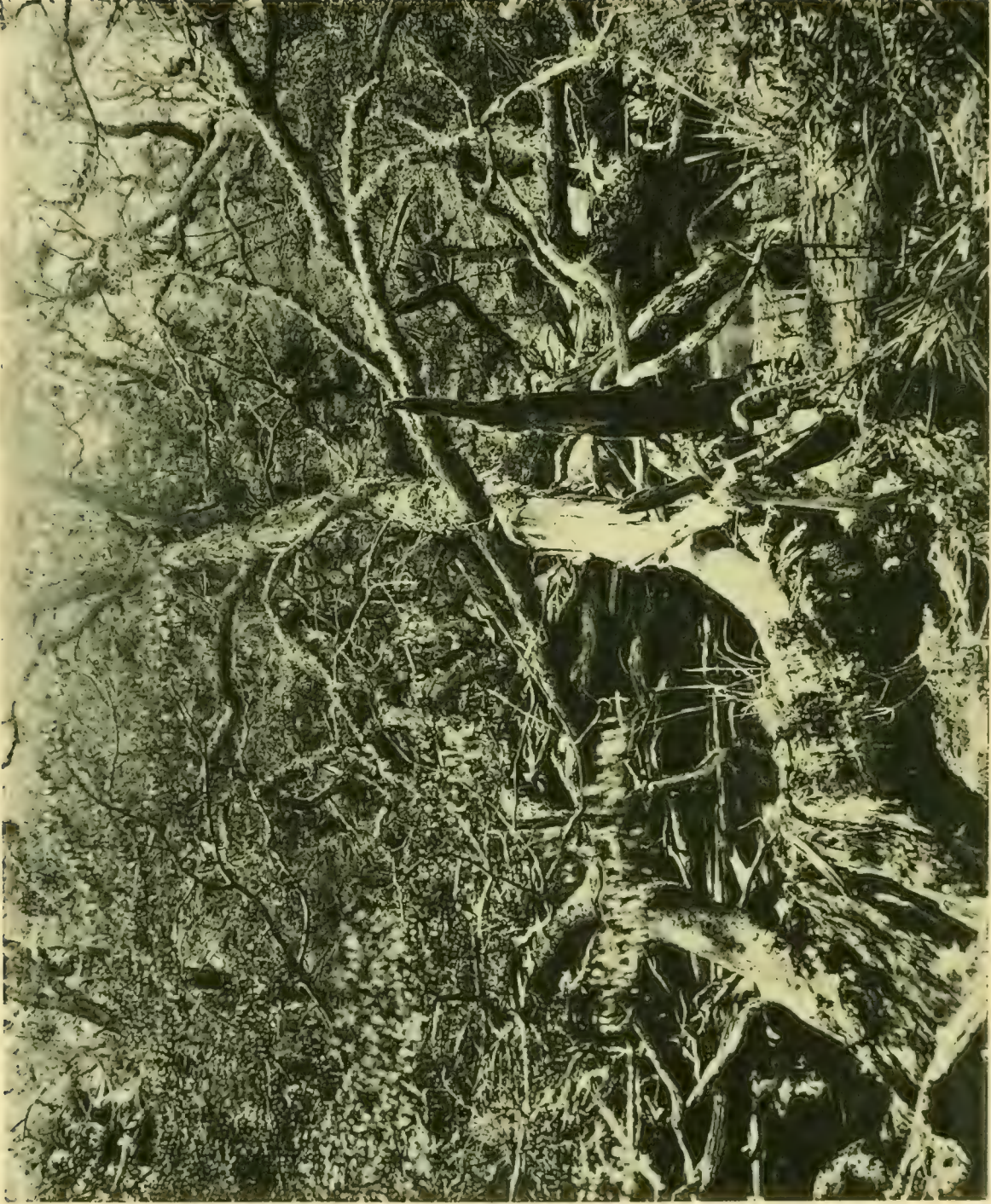
Habitat.—South America, and Tierra del Fuego.

♀, Rio McClelland Settlement, 13th Dec.; ♀, 15th Dec.; ♂, 20th Dec., 1904.

Iris—brown; bill and legs—dark drab.

The White-Crested Tyrant is an exceedingly variable species with a wide range, which, according to Dr. Sclater, includes all South America except Colombia.

On comparison with Peru examples, on which Sclater's description is based, I find the Tierra del Fuego birds uniformly olivaceous brown above rather than "dark ashy brown"; whereas



A FOREST STREAM
SHOWING OVERGROWTH OF ANTARCTIC BEECH

they are in exact agreement with examples from Brazil, Uruguay, and the Northern Argentine.

This is a remarkable bird, having its haunt in forest depths, where its startling whistle at once attracts attention. It took me days to secure a specimen and several more to verify its call, for it is not easy of access in dark covert, where one must approach very nearly to see at all clearly. The first specimen I shot was carried down the river, the second was lost in the undergrowth, the third had the lower mandible shot away. The white crest is conspicuous at a considerable distance if lit up by a transient sunbeam penetrating the forest gloom. To the White-Crested Tyrant I owe my single specimen of the Pigmy Owl, as I have related in my account of that bird. Its repeated whistling and excited behaviour when harrassing the Owl gave me my first opportunity to observe it closely. It feeds on phytophagous larvæ, also on coleoptera. The stomachs of these three specimens contained in two instances larvæ, in the third coleoptera as well.

Darwin says:—"It inhabits the gloomiest recesses of the great forests. It generally remains quietly seated high up amongst the tallest trees, whence it constantly repeats a very plaintive gentle whistle, in an uniform tone. The sound can be heard at some distance, yet it is difficult to perceive from which quarter it proceeds, and from how far off; and we remained in consequence for some time in doubt from what bird it proceeded."

In the Province of Buenos Ayres Durnford records it a spring and summer visitor, and at these seasons pretty common, especially in the riverain wood. The nest he describes as "a small and very neat structure of lichen or moss lined with hair and feathers not unlike our English Chaffinch's nest, and is usually placed about ten feet from the ground in the fork of a tree."

Family DENDROCOLAPTIDÆ

GEOSITTA CUNICULARIA (Vieillot)

Alondra de la minera, Azara, *Pájaros, Paraguay y La Plata*, ii, p. 13, 1805.

Alauda cunicularia, Vieillot, *Nouv. Dict. d'Hist. Nat.*, i, p. 369, 1816.

Certhilauda cunicularia, D'Orbigny, *Voy. Amér. Mérid.*, Ois., p. 358, pl. xliii, 1835.

Furnarius cunicularius, Gould and Darwin, *Voy. "Beagle," Birds*, p. 65, 1841.

Geositta cunicularia, Sclater and Hudson, *Argentine Orn.*, i, p. 165, 1888; Durnford, *Ibis*, p. 178, 1877, p. 395, 1878; Sclater, *Cat. Birds Brit. Mus.*, xv, p. 5, 1890.

Habitat.—Uruguay, the Argentine Republic, and Chili, to Tierra del Fuego.

♂, Sara Settlement, 18th Oct., 1904.

Iris—brown; bill and legs—dark drab.

The Common Miner was almost the only small land bird I remarked on the bare grass flats at the head of Useless Bay on landing there at the end of winter.

It is very common in the open country of the lowlands, and its name is most happily chosen.

"Así la llamo"—Alondra de la minera—says Azara, its discoverer, "aludiendo á que excava agujeros en qualesquiera barranquitas, y cria dentro sobre colchon de pajitas á la profundidad de tres quartas, donde fabrica una ollita para el nido. Vive á pares, y corre á pasos ligeramente por las sendas y caminos, dexándose acercar mucho. En tiempo de amor se persiguen los sexôs, dando una especie de chillido agudo como riéndose. No la he oido otro canto, ni sé que se eleve. No dilata mucho sus vuelos, ni se posa en alto."

It is disappointing to find no account of it by D'Orbigny, for his powers of observation and description could have been well employed in describing a bird of such characteristic habits.

Darwin contributes the following interesting note :—"This

Furnarius constantly haunts the driest and most open districts ; and hence sand-dunes near the coast afford it a favourite resort. In La Plata, in Northern Patagonia, and in Central Chili, it is abundant : in the former country it is called Casarita, a name which has evidently been given from its relationship with the Casaro, or *Furnarius rufus*, for, as we shall see, its nidification is very different. It is a very tame, most quiet, solitary little bird, and like the English Robin (*Sylvia rubecola*), it is usually most active early in the morning and late in the evening. When disturbed it flies only to a short distance ; it is fond of dusting itself on the roads ; it walks and runs (but not very quickly), and generally by starts. I opened the stomachs of some, and found in them remains of coleoptera, and chiefly *Carabidæ*. At certain seasons it frequently utters a peculiar, shrill but gentle, reiterated cry, which is so quickly repeated as to produce one running sound. In this respect, and in its manner of walking on the ground, and in its food, this species closely resembles the Casaro, but in its quiet manners it differs widely from that active bird. Its nidification is likewise different, for it builds its nest at the bottom of a narrow cylindrical hole, which is said to extend horizontally to nearly six feet under ground. Several of the country people told me that when boys they had attempted to dig out the nest, but had scarcely ever succeeded in getting to the end. The bird chooses any low bank of firm sandy soil by the side of a road or stream.

At the settlement of Bahia Blanca the walls are built of hardened mud ; and I noticed one, enclosing a courtyard, where I lodged, which was penetrated by round holes in a score of places. On asking the owner the cause of this, he bitterly complained of the little Casarita, several of which I afterwards observed at work. It is rather curious, that as these birds were constantly flitting backwards and forwards over the low wall, they must be quite incapable of judging of distance or thickness even after the shortest circuitous route, for otherwise they would not have made so many vain attempts."

Durnford says of it, in the Province of Buenos Ayres :—" One can scarcely take a ride in the country here without being aware, before having gone a great distance, of a small and active bird which constantly keeps flitting just in front of your horse, every now and then alighting on a clod of earth, but off again before you have reached it. It lives on the ground, like our familiar little Wheatear, and constantly flits its tail up and down ; it also has a habit, like that bird, of sometimes taking short quick runs and stopping as suddenly as it started."

He records it uncommon in the Chupat Valley, and he did not observe it on his expedition to the lakes.

CINCLODES PATAGONICUS (Gmelin)

Motacilla patagonica, *Gmelin, Systema Naturæ*, i, p. 957, 1788.

Opetiorhynchus rupestris, *Kittlitz, Mem. l'Acad. St. Petersb.*, 1, p. 188, pl. viii, 1831.

Opetiorhynchus patagonicus, *Gould and Darwin, Voy. "Beagle," Birds*, p. 67, 1841.

Cinclodes patagonicus, *Sclater, Cat. Birds Brit. Mus.*, xv, p. 22, 1890.

Habitat.—Patagonia, Chili, and Tierra del Fuego.

♂ Rio McClelland Settlement, 19th Dec., 1904.

Iris—brown ; bill and legs—dark brown.

All previous expeditions appear to have met with this bird, with the exception of Durnford and the French Mission to Cape Horn.

It is common on the sea shore where there are cliffs : it also frequents the banks of streams inland. It is possessed of much originality of character, and is not likely to be overlooked nor confused with any other bird in the island, although very closely allied to the larger *C. nigrifumosus* of Northern Chili and Southern Peru and the darker *C. antarcticus* of the Falkland Islands.



THE ATLANTIC COAST
LOW TIDE

It breeds in holes in the cliffs. If one invades the domain of a pair, they become much perturbed: they descend to the beach, run about, droop and flutter their wings, and screech shrilly “*P-i-r-r-r* !” There is no difficulty in locating their nests, but these are placed so awkwardly in the face of perpendicular sandy cliffs, that the chance of the cliff coming away in getting up to them or burying one in digging them out, makes it hardly worth the risk of attempting it. They live on small crustacea—a kind of sand hopper (*Orchestia chilensis*)*—inhabiting the monster masses of sea-weed growing along shore and ever being thrown up by the tide. For procuring these, the bill is well adapted. These birds possess a peculiarly strong and unpleasant odour.

According to Darwin, the habits are quite similar in all these nearly allied shore forms. He says:—“They live almost exclusively on the sea beach, whether formed of shingle or rock, and feed just above the surf on the matter thrown up by the waves. The pebbly beds of large rivers sometimes tempt a solitary pair to wander far from the coast. Thus at Santa Cruz I saw one at least one hundred miles inland. In Tierra del Fuego I scarcely ever saw one twenty yards from the beach, and they may frequently be seen walking on the buoyant leaves of the *Fucus giganteus*,† at some little distance from the shore. . . . They are very quiet, tame and solitary, but they may not unfrequently be seen in pairs. They hop and likewise run quickly; in which latter respect, and likewise in their greater tameness, they differ from the *O. vulgaris*. Their cry is seldom uttered, but is a quick repetition of a shrill note, like that of the last-named bird, and of several species of *Furnarius*.”

“On the 20th of September, I found, near Valparaiso, a nest with young birds in it: it was placed in a small hole in the roof of a deep cavern, not far from the bank of a pebbly stream.”

* For this name I am indebted to Dr. W. T. Calman, who has examined specimens taken from the stomach of the bird.—R. C.

† Now known as *Macrocystis pyrifera*.—R. C.

CINCLODES FUSCUS (Vieillot)

Anthus fuscus, *Bonnaterre et Vieillot, Tableau Encyclopédique, Ornithologie*, i, p. 325, 1791.

Alondra de la parda, *Azara, Páxaros, Paraguay y La Plata*, ii, p. 11, 1805.

Uppucerthia vulgaris, *D'Orbigny, Voy. Amér. Mérid., Ois.*, p. 372, pl. lvii, 1835.

Opetiorhynchus vulgaris, *Gould and Darwin, Voy. "Beagle," Birds*, p. 66, 1841.

Cinclodes fuscus, *Durnford, Ibis*, p. 179, 1877; *Sclater and Hudson, Argentine Orn.*, i, p. 172, 1888; *Sclater, Cat. Birds Brit. Mus.*, xv, p. 23, 1890; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 63, 1891.

Habitat.—Ecuador and Peru, to Tierra del Fuego; the Falkland Islands.

♀ Sara Settlement, 18th Oct., 1904.

Iris—brown; bill and legs—dark brown.

This Tierra del Fuego specimen corresponds with the palest form of this bird in its wide range, namely the Peru variety, originally described as *C. rivularis*, but since repudiated by Dr. Sclater.

According to that authority, there are no decisive characters to separate *C. albidiventris* of Ecuador and the north, *C. rivularis* of Peru, and *C. minor* of Chili, from the typical form of the Argentine Republic (*C. fuscus*). The Argentine specimens are the darkest on the lower surface, *C. rivularis* much the lightest, and the Bolivian examples intermediate.

This is a very common bird in open country; even in settlements, in close proximity to houses. Favourite abiding places are the primitive wood and sod bridges in the settled districts of the island. Crossing these bridges, many times has my horse shied at this bird flying out from below. It is remarkable for perching on hillocks, fluttering its wings, and uttering a shrill "*P-i-r-r-r-r*" of considerable duration.

Azara thus describes it:—"Unos corrian con ligereza por la

arena y barro de arroyos y lagunas, y otros los caminos como la Correndera. Algunas veces he visto hasta 5 que obraban acordes, y se suele posar en lo alto de las matillas. No dudo que come insectos, pues se los he visto coger en el barro, y que tambien comerá semillas pequeñas. Es muy activa, su volar suelto y veloz, y se dilata mas que las precedentes; pero no la he oido cantar, ni visto que se eleve como las otras."

Nothing is recorded of the life habits by D'Orbigny except that:—"Elle vient souvent au milieu des villages et s'y montre partout très-commune. Jamais elle ne se perche sur les arbres."

Darwin says:—"In general habits it has several points of resemblance with the *Furnarius cunicularius*, but differs in some other respects. Its flight is somewhat similar, but it shows two red bands on its wings, instead of one, by which it can be distinguished at a distance: instead of walking, it only hops; it feeds entirely on the ground, and in its stomach I found scarcely anything but coleopterous insects, and of these many were fungi feeders. It often frequents the borders of lakes, where the water has thrown up leaves and other refuse. It likewise may be met with in all parts of the open grassy plains of Banda Oriental, where (like the *Uppucerthia* at the Rio Negro) it often turns over dry dung. Its note is very like that of the *F. cunicularius*, but more acute, and consists of a shrill cry, quickly reiterated so as to make a running sound. I was informed that, like that bird, it builds its nest at the bottom of a deep burrow."

On Flores Island, in La Plata, during nine days' quarantine, Durnford had no other land companion than this bird, with the exception one morning of a flock of *Eudromias*. He says:—"It feeds on small larvæ and insects, and is fond of rough ground, where there is little herbage, in the neighbourhood of water. In the winter it generally goes in small parties, sometimes in large flocks."

Common as it is on all sides, I could not obtain a nest. It builds in burrows underground, probably some distance in. Many times has this bird come out of the earth at my feet, but

though I have carefully examined all holes anywhere near the spot, I have never been able to trace a nest, except once, when I had no means of digging it out.

OXYURUS SPINICAUDA (Gmelin)

Motacilla spinicauda, *Gmelin, Systema Naturæ*, i, p. 978, 1788.

Synallaxis tupinieri, *Lesson, Voy. "Cécyille," Atl.*, pl. xxix, 1826.

Oxyurus tupinieri, *Gould and Darwin, Voy. "Beagle," Birds*, p. 81, 1841.

Oxyurus spinicauda, *Sclater, Cat. Birds Brit. Mus.*, xv, p. 30, 1890 ;
Oustalet, Miss. Sci. Cap Horn, Ois., p. 69, 1891.

Habitat.—Patagonia, Chili, and Tierra del Fuego.

♂, Rio McClelland Settlement, 24th Nov., 1904.

Iris—brown ; bill—dark drab ; legs—greenish drab.

This is one of the commonest forest birds ; it is almost as plentiful as the Cape Horn Wren, and both make common cause in resenting the intrusion of man. No other bird shows itself so hostile and aggressive. Go where one will, it comes to one, following one persistently within reach of one's person, chirping incessantly, and attracting others of its kind—until one is accompanied by two or three pairs, exclusive of allies in Wrens and Thrushes. It seeks its food on the branches of trees, much after the manner of the Golden-crested Wren. Its call is an ear-piercing chirp.

Common as this bird is and so much in evidence, it has come in for little mention by expeditions to these regions : indeed, Darwin alone seems to have recorded anything of its life habits.

"It is," he says, "perhaps the most abundant of any land species inhabiting Tierra del Fuego. It is common along the west coast, and numerous in Chiloe, even as far north as a degree south of Valparaiso ; but the dry country and stunted woods of Central Chili are not favourable to its increase. In the



West. Newman imp.

ONYCHUS SPHINX



UNDERGROWTH OF ANTARCTIC BEECH
THE HAUNT OF OXYURUS SPINICAUDA

dark forests of Tierra del Fuego, both high up and low down, in the most gloomy, wet, and scarcely penetrable ravines, this little bird may be met with. No doubt, it appears more common than it really is, from its habit of following, with seeming curiosity, every person who enters these silent woods; continually uttering a harsh twitter, it flutters from tree to tree, within a few feet of the intruder's face. It is far from wishing for the modest concealment of the Creeper (*Certhia familiaris*); nor does it, like that bird, run up the trunks of trees, but industriously, after the manner of a Willow Wren, hops about and searches for insects on every twig and branch."

SIPTORNIS ANTHOIDES (King)

Synallaxis anthoides, *King, Pro. Zool. Soc.*, p. 30, 1831.

Synallaxis rufogularis, *Gould and Darwin, Voy. "Beagle," Birds*, p. 77, pl. xxiii, 1841.

Siptornis anthoides, *Sclater, Cat. Birds Brit. Mus.*, xv, p. 70, 1890.

Habitat.—Chili, Patagonia, and Tierra del Fuego; the Falkland Islands.

♂, Rio McClelland Settlement, 29th Nov., 1904.

Iris—brown; bill and legs—drab.

Few expeditions record this Spine-Tail, and none from the island. It was originally obtained by King in the Strait of Magellan and described by him, but he does not give his exact locality, neither does he say anything of its life history. It is again described, and beautifully figured, by Gould from Darwin's Patagonian example.

The series of twelve in the British Museum shows much variation.

The most southerly specimens are Darwin's, which differ materially from one another. His bird from the Falkland Islands is paler and shows no mottling on the breast; his bird from Santa Cruz, Patagonia, agrees more nearly than any other with mine from Tierra del Fuego, but above has the

feathers dark brown fringed with reddish brown, as against black fringed with greyish brown in my bird.

In two examples from Chili, the fulvous throat is absent.

This is a rare bird in Tierra del Fuego. I saw only one. This I secured in some scattered clumps of brushwood (*Chiliotrichum amelloideum*), on the open downs to the south of Useless Bay. In life it puzzled me to make out whether I knew it or not, and I observed it closely for about a quarter of an hour. During this time it kept moving about restlessly amongst the bushes, chirping excitedly, but never allowing me to come very near; so that, believing there must be a nest, I made search for this, but could not find it, nor was the mate to be seen.

Many times was I in the same place, and two months in this locality, without remarking another.

Darwin says:—"These birds are not uncommon on the dry rocky mountains near Valparaiso, and in the valleys of Southern Patagonia, where a few thickets grow. They hop actively about the withered herbage and low thickets, and often feed on the ground."

This specimen's stomach contained minute insects.

PYGARRHICUS ALBIGULARIS (King)

Dendrocolaptes albigularis, *King, Pro. Zool. Soc.*, p. 30, 1831.

Dendrodramus leucosternus, *Gould and Darwin, Voy. "Beagle," Birds*, p. 82, pl. xxvii, 1841.

Pygarrhicus albigularis, *Sclater, Cat. Birds Brit. Mus.*, xv, p. 126, 1890; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 70, 1891.

Habitat.—Chili, Patagonia, and Tierra del Fuego.

♂, Rio McClelland Settlement, 24th Nov.; ♀, 30th Dec., 1904.

Iris—dark brown; bill—dark horn colour, lower mandible white; legs—dark grey.

Captain King is the discoverer of the White-throated Wood Hearer. Darwin met with it in Chiloe and Southern Chili



West Newman imp.

PYGARRHIUS ALBIGULARIS

to as far north as about a degree south of Valparaiso. It is described and figured by Gould as *Dendrodramus leucosternus*, apparently in ignorance of the work done by King.

This was the first forest bird to attract my attention on arrival from the open country to the north-eastward.

No one can be many hours in the forest without remarking its tapping on the tree trunks and its clicking "*Tick*," and associating both with this little restless energetic bird. No other pursues the tenour of its life so completely engrossed in itself as to appear indifferent to all else. It does not seem able to be idle a moment. If at work on a tree, it does not notice a man thirty feet below observing it closely. It then abandons the tree quite on impulse, dashing away recklessly, in undulatory flight, "*Ticking*" on the wing, seemingly at haphazard as to the direction it takes. On impulse, similarly, in the course of its headlong career through the forest, it alights on the trunk of another tree, and at once resumes its quest for insects. Its habits are very much those of the Nuthatch (*Sitta cæsia*.)

Darwin found it "common in the forests of Chiloe, where, differently from *Oxyurus tupinieri*, it might be seen running up the trunks of the lofty forest trees." Its manners appeared to him to resemble those of *Certhia familiaris*. He found coleopterous insects in its stomach.

Coleoptera and coleopterous larvæ are its food.

Family PTEROPTOCHIDÆ.

SCYTALOPUS MAGELLANICUS (Gmelin)

Magellanic Warbler, Latham, *Synopsis Birds*, ii, p. 464, 1783.

Motacilla magellanica, Gmelin, *Systema Naturæ*, i, p. 979, 1788.

Scytalopus fuscus, Jardine and Selby, *Illustr. Orn.*, iv, pl. xix, 1838.

Pteroptochus albifrons, Landbeck, *Wiegmann's Arch. f. Naturg.*, p. 273, 1857.

Scytalopus magellanicus, *Gould and Darwin, Voy. "Beagle," Birds*, p. 74, 1841; *Sclater, Cat. Birds Brit. Mus.*, xv, p. 338, 1890; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 71, 1891; *Ménégaux et Hellmayr, Bull. Mus. d'Hist. Nat.*, p. 378, 1905.

Habitat.—Chili, and Tierra del Fuego; the Falkland Islands.

♂, Nose Peak Forest, 18th Jan.; ♂, 19th Jan., 1905.

Iris—brown; bill—dark brown; legs—yellowish drab.

In ignoring the validity of *Scytalopus albifrons*, Dr. Sclater says:—"It is quite possible that the birds with the crown edged with silver-grey may belong to a different species. It is certainly curious that none of the northern birds show any trace of this colour, which only occurs in certain specimens from Chili. But other Chilian and Patagonian skins are quite undistinguishable from the northern bird and show no trace of white on the head."

After examining the series obtained by the French Mission to Cape Horn, Dr. Oustalet came to the conclusion that the white crest is nothing more than a character of inadult plumage. Mm. Ménégaux and Hellmayr, however, have recently again examined this series, and they are satisfied that the white-crested form is adult: they are also of opinion that it is specifically distinct from the all-black form of which the series contains an inadult specimen possessing no trace of white on the crown; and they propose to retain *S. albifrons* as a synonym of *S. magellanicus*, and to reserve for the all-black bird the name *S. niger* after Swainson in 1838.

The large series in the British Museum is remarkable for the greater size of the northern birds, the average length of which is from 4·5 to 4·6 inches.

My two specimens are adults, and entirely black, with the exception of four silver-tipped feathers in the crown of one, and one in the crown of the other. They measure:—

Length 4.0, culmen 0.05, wing 1.95, tarsus 0.7, tail 1.15 in.

„ 4.0, „ 0.05, „ 1.95, „ 0.7, „ 1.2 „

The only authority for this bird's occurrence in the Falkland



West. Newman imp

SCOTALCOPUS MAGELLANICUS

Islands is Darwin, and the account he gives of its habits is supported by his immature specimen from there in the British Museum.

"In the Falkland Islands," he says, "instead of inhabiting forests, it frequents the coarse herbage and low bushes, which in most parts conceal the peaty surface of that island . . . In a skulking manner, with its little tail erect, it hops about the most entangled parts of the forests of Tierra del Fuego; but when near the outskirts, it every now and then pops out, and then quickly back again. It utters many loud and strange cries: to obtain a good view of it is not always easy, and still less so to make it fly."

Myself, I have never seen *Scytalopus* anywhere but in forest. During nearly two months in the forest country to the south of Useless Bay, I saw three examples in all—a pair on the first occasion, then a single bird. Try as I would I could not shoot a specimen. Later, it proved common in Nose Peak forest. Its dark haunts, its minute black form, and its lurking restless habits, make it as difficult to locate as it is to shoot with so tiny a weapon as a collector's gun. Luckily, it is possessed of curiosity, which impels it sometimes to rush out at one's feet, so close that one must withdraw to a proper distance before one can shoot. Many times have I been followed by the bird, out of curiosity, before I have retreated the necessary distance. Its movements are largely on foot: the wings are little more than accessories to the legs in negotiating short, sharp rushes from one thicket to another along tree-trunks lying prone or the ground itself. So rapidly does it move, and so much along the surface of the ground or of objects thereon, that unless one has been previously aware of its existence, one would certainly take it for a mouse rather than a bird.

For so small a creature the voice is remarkably powerful. Hardly can it be said to have a song. Its principal call is "*Kum-bak*," repeated an indefinite number of times, at regular intervals. During nearly two months' close observation of the

forest birds to the south of Useless Bay, I frequently heard it, but could never trace it to the bird until my journey to Nose Peak. Another of its calls is "*Ha-hu : hu-hu*," very startling, usually uttered as it emerges from the undergrowth at one's feet. A third is "*Ti-ti : yum*," twice uttered, resembling the song of the African Jacana and hardly inferior in power. It has also an abrupt note of alarm or protest. It is a remarkable bird in every way. Insects are its food.

HERODIONES

Family ARDEIDÆ

NYCTICORAX CYANOCEPHALUS (Molina)

Ardea cyanocephala, Molina, *Saggio Storia Naturale, Chili*, p. 344, 1782.

Nycticorax americanus (*nec Bonaparte*), Gould and Darwin, *Voy. "Beagle," Birds*, p. 128, 1841.

Nycticorax cyanocephalus, Sharpe, *Cat. Birds Brit. Mus.*, xxvi, p. 156, 1898.

Habitat.—Chili, Patagonia, and Tierra del Fuego.

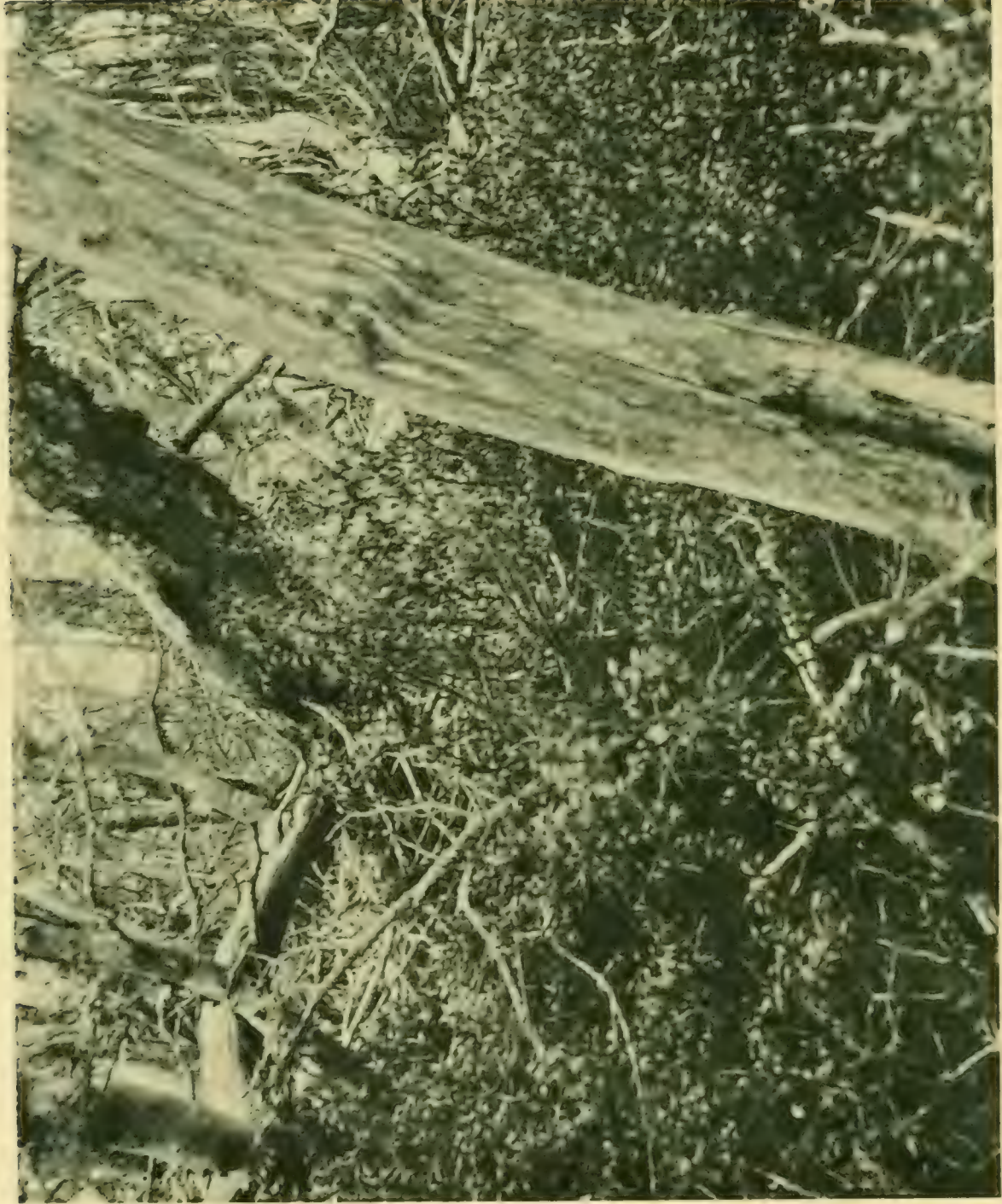
♂, Rio McClelland Settlement, 2nd Dec., 1904.

Iris—apricot; bill—dark grey, yellow points; legs and feet—yellowish drab, yellow points.

I find it impossible to comprehend this Night Heron in its relation to the work of other expeditions, between authorities who variously recognize Molina or ignore him and prefer Lichtenstein, and authorities who determine two species or one over a range which appears to overlap.

Certainly this bird has come to merit the name "*obscurus*" in another sense than originally contemplated by Lichtenstein!

My example is not as dark as the majority of the series in



NOSE PEAK FOREST
A HAUNT OF SCYTALOPUS MAGELLANICUS

the British Museum. If it is a younger bird, it carries a long head plume—a single white pennant 9 inches long, $\frac{1}{16}$ inch broad. Only one male in the British Museum shows the head plume, and it has two such feathers rather less than 6 inches long.

The Night Heron is not plentiful. I have only met with it in the forest country to the south of Useless Bay, though I heard of one roosting in the woodwork of a bridge over the Rio San Martin, in San Sebastian Settlement. It occurs in colonies of from four or five to perhaps a dozen.

A colony of about seven frequented the Rio McClelland Valley. They were extremely retiring: in the day time they remained hidden in the forest depths; at dusk of evening they repaired to the seashore, returning inland again before broad daylight.

In Whiteside Channel, I saw these birds on the rocks at noonday. On my approach, riding along the beach, they would take wing out to sea, flying low over the water and describing a curve, to return to land elsewhere. In their forest retreats, they are of stupid habit when intruded on; they crane their necks, make weird noises, shift about uneasily, lose foothold, and flop clumsily from tree to tree, conscious of danger, yet incapable of adopting any definite course for self-preservation.

I shot this specimen in the forest with the .410, No. 7 shot.

Family PLATALEIDÆ

THERISTICUS MELANOPIS (Gmelin)

Le Petit Courly d'Amérique, *Brisson, Orn.*, v, p. 337, 1760.

Black-faced Ibis, *Latham, Synopsis Birds*, iii, p. 108, pl. lxxix, 1785.

Tantalus melanopis, *Gmelin, Systema Naturæ*, i, p. 653, 1788.

Mandurria ó curucáu, *Azara, Pájaros, Paraguay y La Plata*, iii, p. 189, 1805.

Theristicus melanops, *Gould and Darwin, Voy. "Beagle," Birds*, p. 128, 1841; *Cunningham, Ibis*, p. 126, 1868.

Theristicus melanopis, *Durnford, Ibis*, p. 190, 1877, p. 400, 1878; *Sharpe, Cat. Birds Brit. Mus.*, xxvi, p. 21, 1898.

Theristicus caudatus (*nec Boddaert*), *Sclater and Hudson, Argentine Orn.*, ii, p. 110, 1889; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 140, 1891.

Habitat.—Central Brazil and Peru, to the region of Cape Horn.

♂, Useless Bay Settlement, 13th Nov., 1904.

Iris—dull crimson; bill and naked skin on head—black; legs and feet—black tinged with crimson.

There is no difficulty in identifying the Black-faced Ibis.

So much has been written of its habits that there is hardly room to record anything original.

It is one of the few birds particularly mentioned by Cook, as "a species of Curlews nearly as big as a Heron."

Azara's old-time observations are worthy of quotation:—"Va comunmente á pares y en familias, y tambien he visto bandadas de cincuenta. Aunque algunas veces se encuentra en lugares húmedos, no interna en los barriales, ni en las aguas, y prefiere conocidamente los campos secos, donde come Lombrices, Grillos y otros insectos. Se suele acercar á los cadáveres del campo, particularmente en tiempos secos; y no dudo lo hace porque la humedad de la corrupcion hará salir las Lombrices, y porque allí acuden multitud de Escarabajos á escarvar debaxo para depositar sus huevos. Todas las familias ó parejas de una ó mas leguas en contorno acuden á dormir en los mismos árboles, prefiriendo siempre los muy altos, secos y de ramas trouchadas que están en las orillas de los bosques; de manera que si hay



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Theristicus melanopsis

escasez de estas circunstancias, se juntan en el propio árbol quantas pueden acomodarse, y por la mañana cada pareja ó familia va á buscar el campo de su destino; porque no se aleja de los que empezáron á freqüentar, pudiendo se contar con que están hoy donde ayer sobre poco mas ó ménos. La he visto covar sobre un nido hecho de abundancia le palitos, y al parecer hondo, colocado en la corona de un tronco tronchado á doce varas de altura. En un pequeño corral ví un individuo, y so dueño me dixo que se lo habian dado seis meses ántes ya adulto, y que le habian criado desde pollo en otra casa. Vivía en paz con las Gallinas y Patos, aprovechando los desperdicios de la cocina sin aspirar á escaparse. Quando se dirige á dormir al ponerse el sol, vuela con bastante elevacion; pero por lo comun sus vuelos son baxos, rectos, horizontales, algo espaciosos, con el cuello tendido, batiendo á compas las alas, y posándose á la vista."

Darwin met with it on the desert gravelly plains of Patagonia, lat. 48° S., and says:—"It generally lives in pairs, but during part of the year in small flocks. Its cry is very singular and loud; when it is heard at a distance it closely resembles the neighing of the guanaco. I opened the stomach of two specimens, and found in them the remains of lizards, *Cicadae*, and scorpions. It builds in rocky cliffs on the seashore; egg dirty white, freckled with pale reddish brown; its circumference over longer axis is seven inches."

Dr. Cunningham describes it as "very shy and wary; and it was long before a specimen was procured."

In the Province of Buenos Ayres, Durnford found it a winter visitor, arriving in May and leaving in October. He did not observe it north of the city. He says:—"Its long curved beak suggests an affinity to the Curlew; but I have never seen it except on comparatively dry ground, and its habits are quite different from theirs. It is usually found in small parties, whose harsh cries can be heard at a great distance. Its flight is easy and powerful, and generally performed at a considerable height in the air. It feeds on grubs and large worms."

In Central Patagonia he says of it :—" A few seen on the 10th November at the mouth of the Sengel, and subsequently observed in the Chupat valley. I believe a few pairs were breeding on some swampy ground in the latter place, as I was informed that some large pale bluish eggs had been found in the swamp where I had seen the birds. I was unable, however, to trace them."

This Ibis is a summer visitor in Tierra del Fuego, arriving on the first break-up of winter. The first I saw were a pair, flying high and noisily, at the head of Useless Bay, on August 28th, the day on which I shot my first guanaco. There is no more remarkable personality amongst the birds of the island. Long before one sees them, or without one's seeing them at all, their far-reaching cry is audible. Later one may, or may not sight them, a pair or more dark forms beating their way in the wind, now over the flat, now topping a ridge, now diving into a valley, zig-zagging hither and thither, yet ever persistently making for their objective.

Azara describes the cry as "*Crucáu ó curucáu*" and "*Totac*." Darwin compares it to the neighing of the guanaco. Cunningham renders it "*Qua-qua, qua-qua*."

All are good interpretations. The cry assimilates many sounds, according to distance and how it is borne to the ear—up, down, or across the wind. Many times have I taken it for the neigh of a guanaco, and *vice versâ*. It appeared to me most to resemble the "*Tink-tink*" of a blacksmith's anvil—bell-like and musical in the distance; deeper, harsher, and more intense in its interruptions at close quarters. "*Ibis avis robusta*" is well said. It is a "robust" bird—muscular, broad and deep chested, tough of skin, requiring an extraordinary amount of killing, but withal excellent eating. It is exceedingly wary and difficult of approach. However, on the wing, it gives plenty of warning; so that, if one knows its line, it is possible to conceal oneself and obtain a shot. Like the African *Hagedashia hagedash*, it is remarkable for regularity of habit—in time of flight from roosting place to feeding grounds in the morning and back in the evening. Never once did I discover a roosting place, though

I have seen many in the case of *H. hagedash*. I do not think it roosts in trees in Tierra del Fuego, otherwise I should have seen this to the south of Useless Bay ; but probably in the sea cliffs, or in precipitous places in the mountains inland.

This specimen was shot by Mr. H. Dixon, who kindly gave it to me for preservation. The stomach contained large larvæ.

The Ona name is "*Koritchet*."

Family PHÆNICOPTERIDÆ

PHÆNICOPTERUS IGNIPALLIATUS

(D. D'Orbigny et I. Geoffroy Saint-Hilaire)

Flamant d'Amérique, *Buffon, Hist. Nat. Ois.*, ix, p. 322, pl. lxiii, 1774.

Flamenco, *Azara, Páxaros, Paraguay y La Plata*, iii, p. 133, 1805.

Phœnicopterus ignipalliatus, *D. D'Orbigny et I. Geoffroy Saint-Hilaire, Ann. Sci. Nat.*, xvii, p. 454, 1829 ; *Cunningham, Nat. Hist. Strait of Magellan*, p. 210, 1871 ; *Durnford, Ibis*, p. 400, 1878 ; *Sclater and Hudson, Argentine Orn.*, ii, p. 117, 1889.

Phœnicopterus chilensis, *Salvadori, Cat. Birds Brit. Mus.*, xxvii, p. 16, 1895.

Habitat.—Peru, Chili, and the Argentine Republic, to Tierra del Fuego.

The most southerly point this Flamingo has been recorded hitherto seems to be Gregory Bay, on the Patagonian mainland. Here the "Nassau" Survey shot three—and Cunningham mentions it was the only occasion it was met with in this region.

The only time I saw Flamingos was at a small lagoon near Cañadon Grande, when crossing the island on November 30th. There were ten, one of which was in greyish white plumage. Not knowing how wild they are, I attempted to get at them with the gun, and they flew before I was within much less than 150 yards ; a careful shot with the rifle, with any luck, would have been successful. The lagoon where they were had bare margins and looked brackish ; the only other bird there was the Antarctic Duck in large numbers.

At Gente Grande lagoons, they are very plentiful.

At the great lakes in the interior of the Pampas, Azara states he saw "algunas bandadas de muchos centenares; y aunque ninguna vez quise acercarme á tirarles, los encontré muy ariscos."

Darwin observed Flamingos throughout Patagonia, in Northern Chili, and at the Galapagos Islands, wherever there were lakes of brine. Considerable numbers inhabit a salt lake near the Rio Negro and breed there. He says:—"I saw them wading about in search of food—probably for the worms which burrow in the mud; and these latter probably feed on infusoria or confervæ. Thus we have a little living world within itself, adapted to these island lakes of brine."

About Lake Colguape and the R. Sengel, Durnford found them common, partially resident, and occurring in greatest numbers in winter.

ANSERES

Family ANATIDÆ

CYGNUS NIGRICOLLIS (Gmelin)

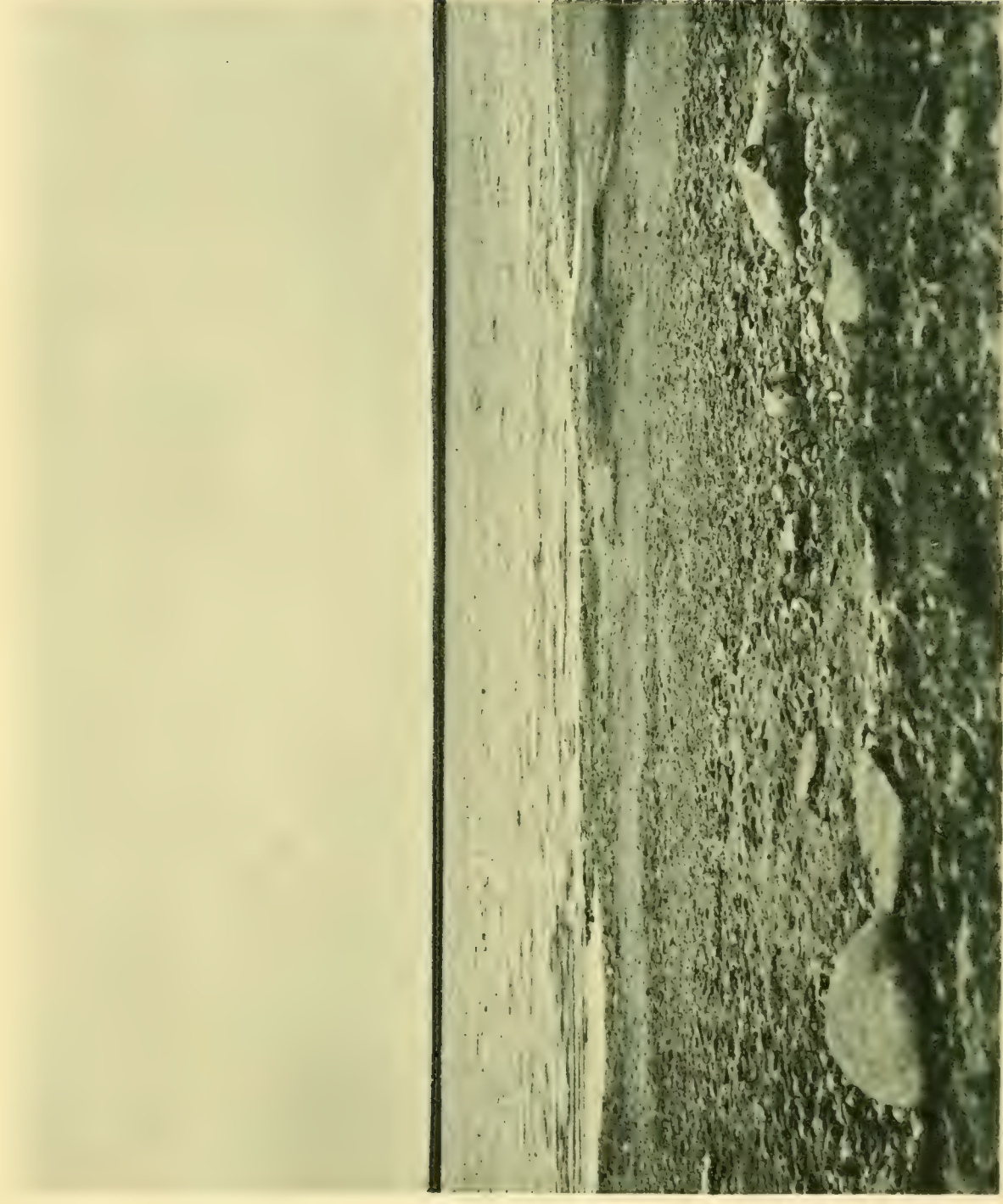
Anas nigricollis, *Gmelin, Systema Naturæ*, i, p. 502, 1788.

Cisne de cabeza negra, *Azara, Páxaros, Paraguay y La Plata*, iii, p. 404, 1805.

Cygnus nigricollis, *Cassin, U. S. Astron. Exp.* ii, p. 200, 1855; *Abbott, Ibis*, p. 159, 1861; *Cunningham, Nat. Hist. Strait of Magellan*, p. 266, 1871; *Durnford, Ibis*, p. 191, 1877, p. 400, 1878; *Sclater and Hudson, Argentine Orn.*, ii, p. 124, pl. xviii, 1889; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 185, 1891.

Cygnus melancoryphus, *Salvadori, Cat. Birds Brit. Mus.*, xxvii, p. 39, 1895.

Habitat.—Southern Brazil and Paraguay, to Tierra del Fuego; the Falkland Islands.



AN INLAND LAGOON

A RESORT OF THE COSCOROBA AND BLACK-NECKED SWANS

♀, Useless Bay Settlement, 9th Nov., 1904.

Iris—brown ; bill—mauve ; legs—pale pink.

It is remarkable that Darwin makes so little mention of the Black-necked Swan ; his only allusion to it seems to be the one pair seen near Cape Tres Montes on the coast of Chili.

The French Mission to Cape Horn did not obtain it south of the Patagonian mainland.

There are vast numbers in the Gente Grande lagoons on the north coast. Further south I did not find them plentiful, except in isolated flocks. They have a preference for lagoons where the water is brackish. The only place I have seen any considerable number was on a lagoon on the track between Useless Bay Settlement and Cheena Creek. There I shot this specimen with the rifle. There were about 150 on the lagoon ; a fortnight later, about double that number. On visiting this lagoon again in February, I found none of this species, but a single pair of Coscoroba Swans. Occasionally I saw small companies on the wing.

In the Falkland Islands, Abbott says they are found all the year round, but rather scarce and very wild.

In the Province of Buenos Ayres, Durnford says, they are winter visitors, but the time of their arrival and departure is very uncertain, depending chiefly on the mildness or severity of the season. In Central Patagonia they are partially resident, but most numerous in the winter. He observed them nesting in the reed-beds at the mouth of the Sengelen, and the old birds were carrying the young on their backs.

There was nothing in the stomach of this specimen beyond sand.

The Ona name is "*Kaum*," in imitation of its note.

COSCOROBA CANDIDA (Vieillot)

Ganso blanco, *Azara, Páxaros, Paraguay y La Plata*, iii, p. 406, 1805.

Anser candidus, *Vieillot, Nouv. Dict. d'Hist. Nat.*, xxiii, p. 331, 1816.

Cygnus coscoroba, *Abbott, Ibis*, p. 159, 1861; *Durnford, Ibis*, p. 41, 1877, p. 400, 1878.

Coscoroba candida, *Sclater and Hudson, Argentine Orn.*, ii, p. 126, 1889; *Salvadori, Cat. Birds Brit. Mus.*, xxvii, p. 42, 1895.

Habitat.—Paraguay, the Argentine Republic, and Chili, to Tierra del Fuego; the Falkland Islands.

♂, Gente Grande Lagoons, 24th Feb., 1905.

Iris and bill—dark lilac; legs—lilac.

During my travels in Tierra del Fuego I saw very few Coscoroba Swans, and these only on the same lagoon as that frequented by the Black-necked Swan.

Mr. Ernest Hobbs informs me they are in thousands in the neighbourhood of Gente Grande where he resides. Hearing I had not secured a White Swan, he most kindly shot this bird and brought it to me in Punta Arenas, in time to enable me to skin it before putting to sea in the “Asuncion de Larrinaga” on my way home.

There is no record of this Swan by Darwin or the French Mission to Cape Horn.

In the Falkland Islands it appears to be very scarce, as Abbott states Mare Harbour is the only part where he ever saw or heard of it, and that here a flock of eight or ten was generally to be found.

In the Chupat Valley, Patagonia, Durnford met with considerable numbers, but not so numerous as *C. nigricollis*. On his last visit, and on his journey to the lakes, he did not observe it at all.

This specimen weighed 11 pounds 13 ounces. There was nothing in the stomach except a very little sand.

CHLOEPHAGA ANTARCTICA (Gmelin)

Anas antarctica, *Gmelin, Systema Naturæ*, i, p. 505, 1788.

Bernicla antarctica, *Gould and Darwin, Voy. "Beagle," Birds*, p. 134, 1841; *Cassin, U. S. Astron. Exp.*, ii, p. 200, pl. xxiii, ♂ ♀, 1855; *Abbott, Ibis*, p. 159, 1861; *Oustalet, Miss. Sci. Cap. Horn, Ois.*, p. 195, 1891.

Chloephaga antarctica, *Cunningham, Nat. Hist. Strait Magellan*, pp. 305, 319, 1871.

Chloephaga hybrida, *Salvadori, Cat. Birds Brit. Mus.*, xxvii, p. 130, 1895.

Habitat.—Patagonia, Chili and Chiloe Island, to Cape Horn; the Falkland Islands.

The Kelp Goose, apparently common in the Falkland Islands and on the south coast of Tierra del Fuego, proved rare in parts visited by me. I did not obtain a specimen. I saw one pair, on two occasions, on a spit of shingle on the rock-bound coast in Whiteside Channel: they rose with a gaggle, and flew low over the water. The snow-white male is very handsome. Its striking appearance, and the peculiar and solitary habit it has of frequenting the sea shore, distinguishes this Goose from all others.

"It lives exclusively on the rocky parts of the sea coast," says Darwin. "In the deep and retired channels of Tierra del Fuego, the snow-white male, invariably accompanied by his darker consort and standing close by each other on some distant rocky point, is a common feature in the landscape."

The "Erebus" and "Terror" obtained it at Cape Horn.

In the Falkland Islands, Abbott found it a very common bird along the coast.

On the "Nassau" Survey, Cunningham mentions one example only was met with in the eastern portion of the Strait of Magellan, but that more to the westward it is common. He says:—"It never goes in large flocks, rarely more than five or six being to be seen in company at a time, and generally

but a solitary pair to be observed on one spot. As a rule, they were exceedingly wary. The flesh is quite uneatable at most seasons of the year, owing to the nature of their food, which consists of molluscs and other marine animals."

Some eggs shown me by Mr. Betts, of Useless Bay Settlement, were smaller than the eggs of the Steamer Duck.

CHLOEPHAGA MAGELLANICA (Gmelin)

White-winged Antarctic Goose, *Brown, Illustrations Zool.*, p. 100, pl. xl, ♂, 1776.

Oie des Terres Magellaniques, *Buffon, Hist. Nat. Ois.*, ix, pl. mvi, ♀, 1784.

Anas magellanica, *Gmelin, Systema Naturæ*, i, p. 505, 1788.

Chloephaga magellanica, *Gould and Darwin, Voy. "Beagle," Birds*, p. 134, 1841; *Abbott, Ibis*, p. 157, 1861; *Cunningham, Nat. Hist. Strait Magellan*, p. 130, 1871; *Salvadori, Cat. Birds Brit. Mus.*, xxvii, p. 132, 1895.

Bernicla magellanica, *Durnford, Ibis*, p. 400, 1878; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 187, 1891.

Habitat.—Patagonia and Tierra del Fuego; the Falkland Islands.

The general appearance of *C. Magellanica* and *C. dispar* is so similar that, having only a very limited knowledge of the Geese of these regions at the time of observing them, and not having an opportunity of handling the former until my return to England, I did not note any distinction until I had compared both in the British Museum; but, like the sheepmen of the island, believed the lighter-coloured bird to be nothing more than a phase of *C. dispar*.

I now think that the lighter bird must have been *C. magellanica*.

Darwin says of this species in Tierra del Fuego and the Falkland Islands:—"They live in pairs and in small flocks throughout the interior of the island, being rarely or never found on the sea coast, and seldom ever near fresh-water lakes. I believe



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CHLOEPHAGA DISPAR

this bird does not migrate from the Falkland Islands; it builds on the small outlying islets. The latter circumstance is supposed to be owing to the fear of the foxes; and it is perhaps from the same cause that, although very tame by day, they are much the contrary in the dusk of the evening. These Geese live entirely on vegetable matter."

In the Falkland Islands, however, Abbott subsequently observed them breeding all over the country, as well as on the adjoining islets, and thinks Darwin made a mistake, unless the disappearance of the fox has caused a change in their habits in this respect.

Dr. Cunningham never saw them any considerable distance from the sea, and frequently observed them on the banks of small lakes of salt and fresh water.

Personally, I associate the lighter-coloured birds with seeing them in small isolated companies on the open grass-flats of the lowlands.

CHLOEPHAGA DISPAR (Philippi and Landbeck)

Bernicla magellanica (*nec Gmelin*), *Cassin, U. S. Astron. Exp.*, ii, p. 201, pl. xxiv, 1856.

Bernicla dispar, *Philippi and Landbeck, Anales Universidad Chile*, xx, p. 427, 1862; *Idem, Wiegmann Archiv Naturgeschichte*, i, p. 190, 1863; *Sclater and Hudson, Argentine Orn.*, ii, p. 123, 1889.

Chloephaga inornata, *Salvadori, Cat. Birds Brit. Mus.*, xxvii, p. 134, 1895; *Oates, Cat. Birds' Eggs Brit. Mus.*, ii, p. 155, 1902.

Habitat.—The Argentine Republic and Central Chili, to Tierra del Fuego.

Eggs, Cheena Creek Settlement, 11th Nov., 1904; ♀, ♂, ♂, Useless Bay Settlement, 3rd Feb., 1905.

Iris and bill—black; legs and feet, ♂—black, ♀—orange.

However desirous one may be of retaining long-standing names for association's sake, more especially in the case of that talented

officer of many sympathies, Capt. King, it is impracticable to accept his inadult *Anas inornatus* as the type of this species.

After carefully examining this bird and comparing it with all nearly-allied forms in the British Museum, I am of opinion that it cannot be identified with this species in any normal phase of plumage ; if it resembles anything, it is nearest to *C. antarctica*, of which it has the light-coloured bill and yellow legs and feet, whereas in the male of *C. dispar* these are black.

An excellent plate of King's bird, as *Bernicla inornata*, is given in the Birds of the "Erebus" and "Terror" Expedition.

His female is certainly referable to *C. antarctica* ; it is an inadult specimen about the size of the male, and quite conceivably is of the same brood.

The Barred Magellan Goose is resident in Tierra del Fuego during the entire year. It is, on the whole, the most numerous of all the Geese, for although *C. rubidiceps* exists in perhaps equal numbers in the lowlands, this bird is as commonly met with in the hills and even on the plateau. For anyone who has not actually seen these Geese, it would be impossible to realize what a factor they are in the natural history of the island and its development by man. Go where you will—in and around settlements, on the open flats, on the slopes of the mountains, even on the mountain tops—there are the Geese always, in countless thousands, from single birds or pairs to companies of fifty or a hundred or more. All my previous conceptions of wild Geese were dispelled. In Africa and North America I had been taught to associate them with water and more or less impenetrable marshes ; whereas in Tierra del Fuego, I found them frequenting open, dry ground, and though often in the neighbourhood of water, rarely in it or on it. Never are you out of sight or hearing of Geese, grazing, squatting, and ever rising and gagging, as you go your way. I had expected to find them nesting in low ground, in reeds and long grass, on the margins of lagoons and streams. Until I saw it, I could not conceive that Geese would nest where they commonly do in the island—on dry, open ground,

often within a few yards of the track, at the mercy of man and beast. In such exposed places, it is extraordinary how they escape notice.

Particularly interesting are the breeding habits of this Goose. There is no attempt at a nest until one or two eggs have been laid, in some depression on the bare ground. The bird then commences to deposit her down, adding more and more as she proceeds with the laying. The eggs number usually six, occasionally—according to the experience of others—as many as eight. As incubation proceeds, so does the conduct of the parent vary. If one happens to make straight for her nest, or about twenty yards wide of it, before she has her complement of eggs, she usually rises thirty or forty yards away. If the full number are there, she is not as ready to move, and she becomes less and less inclined to do so the longer she sits; until at last, when the eggs are near hatching, she will not stir until almost trodden on. I have ridden round a Goose under these conditions within eight or ten feet of her, have pulled up and sat looking at her and she stonily at me, and she has never stirred until I have dismounted to put her off. When it comes to sitting as close as this, they flatten out to the utmost, neck, head, and bill to the ground. For concealing the eggs and keeping them warm in the absence of the bird, there is extraordinary provision in the down of the nest, which, with the action of the bird rising from it, is drawn upwards until the sides meet and fall over, completely covering the eggs. All there is to mark the spot is a pad of down, partially masked by grass, sunk below the natural lie of the ground.

It is only within recent years that Geese have attained such numbers in Tierra del Fuego. It is due to the covert being eaten down by sheep, and consequently the growth of short grass. It is also due in some measure to the extinction of the Onas, and the decrease in foxes. Against this, on the other hand, must be set the sheepmen, who collect the eggs for winter consumption, and kill many young birds for eating before

they are able to fly, besides destroying eggs too far incubated to be fit for food.

A common dish of the country at the end of January and in the beginning of February, is a "cazuela" of goslings. At this time, the parent birds resort to all sorts of manœuvres to draw one off their young, leaving them scattered and squatting motionless, while they themselves do all they can to interest one and get one to follow them in the belief that they are cripples.

In spite of all, the Geese increase, and consume much grass otherwise required for sheep.

This bird and *C. rubidiceps* commonly associate with one another, but this is certainly the more wary. Hardly is its colouring gorgeous, yet beautifully anserine, and well in accord with the subdued tone of nature in these regions. The difference in the plumage of the sexes is so remarkable that at first it is difficult to believe them to be the same species, the male being generally black and white, and the female black and reddish brown. During the winter and early spring these birds are exceedingly lean, when *C. rubidiceps*—even when newly arrived—are excessively fat. This female weighed 5 pounds 6 ounces; the males, 6 pounds 15 ounces and 7 pounds 7½ ounces—all in lean condition.

In breeding time, the presence of the light-coloured male standing sentry is a conspicuous feature in the landscape. At Cheena Creek in the early days of November, I used to collect the eggs in my saddle-bags, and bring them in for food. As compared with the series in the British Museum, the two eggs I have are distinctly larger: they measure 3·15 by 2·1 and 3·15 by 2·2 inches, as against the measurements recorded by Oates—2·8 to 2·9 inches for length, and 1·9 to 2·02 inches for breadth.

CHLOEPHAGA RUBIDICEPS (Sclater)

Bernicla inornata, Gray (*nec King*), Zool. Voy. "Erebus" and "Terror," *Birds*, pl. xxiv (*nec Genera Birds; neque King*), 1846.

Chloephaga rubidiceps, Sclater, *Pro. Zool. Soc.*, pp. 387, 415, pl. clxxii, 1860; Abbott, *Ibis*, p. 158, 1861; Oates, *Cat. Birds' Eggs Brit. Mus.*, ii, p. 156, 1902; Salvadori, *Cat. Birds Brit. Mus.*, xxvii, p. 136, 1895.

Habitat—Tierra del Fuego; the Falkland Islands.

♂, Useless Bay Settlement, 8th Sept.; eggs, San Sebastian Settlement, 28th Oct. 1904.

Iris—greyish black; bill—black; legs and feet—orange.

Hitherto, the Ruddy-headed Goose has only been recorded from the Falkland Islands—with the exception of a specimen stated by Oustalet to have been sent to France by D'Orbigny from Patagonia in 1831, and with this nothing seems to have been done.

In the Birds of the "Erebus" and "Terror" Expedition it is figured as *B. inornata*, from a male and female obtained in the Falkland Islands; but was only described by Dr. Sclater as lately as 1860.

It was not met with by Darwin, Cunningham, or the French Mission to Cape Horn.

This Goose is a summer visitor, arriving at the end of winter and breeding in vast numbers. I first remarked its appearance at the head of Useless Bay early in September. Its advent is a remarkable event in the year. After seeing none, a pair appears mysteriously here and there, and these increase from day to day until there are countless thousands. I found these birds excessively fat at the time of their arrival, where—as I have observed elsewhere—*C. dispar*, resident in the island, is as lean as can be, not only at this season but in spring and at the end of summer. In the lowlands they are in about equal numbers with, or perhaps even more numerous than, *C. dispar*.

The two species associate freely ; but this is the less wary, and, indeed, in the neighbourhood of settlements is so tame that it can be shot without a stalk. A few years ago, the sheepmen tell me, these Geese did not exist in anything approaching their present numbers : a yearly increase has been remarkable in their immigration which is attributed to the brush-wood being eaten away by sheep, and the growth of fine grass.

In the Falkland Islands, Capt. Abbott observes of this bird that it is "not so common as the other varieties (*e.g.*, *C. magellanica* and *C. antarctica*), except in some places in the North Camp, where I have seen very large numbers, probably a hundred, but always in pairs. The usual nesting place is among dry bushes, the male bird, while the female is sitting, usually being found on the edge of the nearest water (generally salt), which, however, is frequently not in sight of the nest. The eggs are generally five (sometimes, but rarely, six) in number. The time of laying is the first week in October."

In Tierra del Fuego the nesting season commences perhaps a little later. In the warm spring weather the males become exceedingly pugnacious and noisy, engaging in combat on land or water, while others of their kind are spectators and scream encouragement. All day long are they tourneying on the Rio San Martin, at San Sebastian Settlement, within sight and earshot of the manager's house, until at times the noise becomes irritating.

There I took my first eggs on October 28th, and many more elsewhere for food : the usual complement is five, which I do not remember having seen exceeded.

The eggs are of somewhat varying shape—some oval, some pointed oval. They are of a brownish cream colour. My two examples, taken from my first nest, represent to some extent the prevailing variation in shape : they measure, respectively, 2.75 by 2.0 inches and 28.5 by 1.95 inches.

This bird, in fat condition, weighed 4 pounds 7 ounces.

The Ona name is "*Shohli*."

CHLOEPHAGA POLIOCEPHALA (Gray)

Bernicla inornata, *Gray and Mitchell (nec King), Genera Birds*, iii, p. 607, pl. clxv, 1844.

Chloephaga poliocephala, *Gray, List Birds Brit. Mus.*, iii, p. 127, 1844; *Abbott, Ibis*, p. 159, 1861; *Cunningham, Nat. Hist. Strait Magellan*, p. 184, 1871; *Salvadori, Cat. Birds Brit. Mus.*, xxvii, p. 137, 1895.

Bernicla poliocephala, *Durnford, Ibis*, p. 400, 1878; *Sclater and Hudson, Argentine Orn.*, ii, p. 124, 1889; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 192, 1891.

Habitat.—The Argentine Republic, Chili and Chiloe Island, to Tierra del Fuego; the Falkland Islands.

♂, Useless Bay Settlement, 29th Sept., 1904.

Iris and bill—black; legs and feet—orange, blotched with black.

According to Dr. Oustalet, specimens of the Chestnut-breasted Goose were sent to France by d'Orbigny from Eastern Patagonia in 1831, but it does not transpire what use was made of these.

This is not a common bird. I do not think I saw a hundred altogether, where other Geese could hardly be numbered in figures short of millions. It is a migrant, arriving somewhat later than the majority of *C. rubidiceps*. The first I remarked were two pairs inland on the track between Useless Bay and San Sebastian, Sept. 20th. At odd times I came across a pair or two here and there. It is probably more numerous than is actually apparent: it associates with *C. rubidiceps* and is not readily distinguishable from the latter unless the breast is exposed to view. It is more wary and cunning than either *C. dispar* or *C. rubidiceps*. Long before these become anxious, when all are in company, *C. poliocephala* has its head in the air. I was never able to shoot one. For this example I am indebted to Mr. J. G. Cameron, who is the only settler I know who killed one during the time I was in the island.

Is not this, rather than *C. dispar*, the "Painted Goose" which Commodore Byron mentions afforded the survivors of the "Wager" means of subsistence in 1740 in the Guaianeco Islands, as he describes it as "having plumage variegated with the most lively colours"?

Neither King nor Darwin record this bird.

Abbott says of it:—"During the three years I have been in East Falkland I have never seen but three, and these were met with singly, at different times, amongst flocks of the Upland Goose (*C. magellanica*)."

On the Patagonian mainland, Cunningham's experience was that it was "common on the eastern portion of the Strait and tamer than the Upland Goose."

In the Province of Buenos Ayres, Durnford says of it:—"Common in winter, about fifty miles to the south of the city; and I observed it last year, when we had unusually severe weather, within thirty miles of Buenos Ayres; it rarely, however, comes as far north as this." In Central Patagonia, he records it a "winter visitor to the Chupat Valley, arriving and departing with *B. magellanica*, and always associating with that species. It nests about Lake Colguape in the same places as *B. magellanica*."

ANAS CRISTATA (Gmelin)

Crested Duck, *Latham, Synopsis Birds*, iii, p. 543, 1785.

Anas cristata, *Gmelin, Systema Naturæ*, i, p. 540, 1788; *Abbott, Ibis*, p. 160, 1861; *Cunningham, Nat. Hist. Strait Magellan*, p. 154, 1871; *Oustalet, Miss. Sci. Cap. Horn, Ois.*, p. 199, 1891; *Salvadori, Cat. Birds Brit. Mus.*, xxvii, p. 216, 1895.

Anas specularoides, *King, Zool. Journ.*, iv, p. 98, 1828.

Habitat.—Central Peru to Cape Horn; the Falkland Islands.

♂, Useless Bay Settlement, 12th Sept., 1904.

Iris—crimson; bill—dark grey; legs and feet—grey.



West, Newman imp

ANAS CRISTATA

The Antarctic Duck was originally described from Staten Island, in the vicinity of Cape Horn. It is not recorded by Darwin, or Durnford.

There are specimens in the British Museum from 14,000 feet altitude in Peru.

This is the only Duck I found in the island at the end of winter. It is resident all the year, frequenting the sea coast in winter, the inland fresh-water lagoons and streams in summer. I have occasionally seen and shot this bird in some of the remote lakes in the forest south of Useless Bay. It is somewhat of a tyrant with other Ducks. It is more a marine than a fresh-water form. The plumage on the whole is unusually sombre, but the speculum is indescribably beautiful in its many changing colours, in which perhaps burnished copper tinged with mauve is the most remarkable. It is possibly more wary than any other Duck except *M. sibilatrix*. If put up, it invariably flies round—not overhead like *M. sibilatrix* and *D. spinicauda*. The quack is curiously harsh, resembling rather the Landrail. It possesses extraordinary vitality.

Capt. King found this the common Duck in the vicinity of Port Famine, and in the winter months excellent eating.

In the Falkland Islands, Abbott says it is very common everywhere, and although sometimes seen in fresh-water ponds, generally frequents the vicinity of salt water. The old birds are always found in pairs in the same spot; they live upon shell-fish, and have certain boundaries of water along the coast, upon which they will not allow others of their species to encroach. They breed inland among the grass, and on the edges of ponds, laying five eggs in a beautifully made nest covered with down. The time of laying is the beginning of October, and frequently a month later.

On the "Nassau" Survey, Cunningham met with this Duck in the Strait of Magellan almost everywhere in greater or less numbers, generally swimming among the broad belts of kelp at some distance from the shore.

In lean condition, this specimen weighed 2 pounds 6 ounces ; the stomach contained about 3 ounces of strong-smelling fresh-water larvæ.

MARECA SIBILATRIX (Poeppig)

Pato del pico pequeño, Azara, *Pájaros, Paraguay y La Plata*, iii, p. 434, 1805.

Anas sibilatrix, Poeppig, in *Frorieps Notizen*, xxv, No. 529, p. 10, 1829.

Mareca chiloensis, Eytton, *Monograph Anatidæ*, p. 117, pl. xxi, 1838 ; Abbott, *Ibis*, p. 160, 1861.

Mareca sibilatrix, Durnford, *Ibis*, pp. 41, 192, 1877, p. 401, 1878 ; Sclater and Hudson, *Argentine Orn.*, ii, p. 135, 1889 ; Oustalet, *Miss. Sci. Cap Horn, Ois.*, p. 210, 1891 ; Salvadori, *Cat. Birds Brit. Mus.* xxvii, p. 236, 1895.

Habitat.—Paraguay, the Argentine Republic, Chili and Chiloe Island, to Tierra del Fuego ; the Falkland Islands.

♀, San Sebastian Settlement, 28th Oct. ; ♂, Useless Bay Settlement, 3rd Nov., 1904.

Iris—brown ; bill—dark silver grey ; legs—silver grey.

All expeditions appear to record the beautiful Chiloe Widgeon with the exception of Darwin.

The French Mission to Cape Horn met with it no further south than Rio Gallegos, in Patagonia.

It is a summer visitor, arriving the last of its family. The first examples seen by me were a company of five at San Sebastian Settlement, Oct. 22nd, from which date I observed a daily increase in its numbers. By the beginning of November these birds were plentiful on the lagoons at the head of Useless Bay. They breed in the island to some extent to my certain knowledge ; but, whether generally or even freely, I am not prepared to say.

The Widgeon is the most sporting and handsome of the

wildfowl of Tierra del Fuego. It is the wildest of all Duck in the island; but, in time, like other creatures, loses its natural distrust of man, if unmolested; and then becomes an interesting pet at large. There is at Useless Bay Settlement, below the manager's house, within about one hundred yards of it, a pool of water on the outskirts of the marsh, reserved as a sanctuary for birds. Here, there were always a few Widgeon—sometimes twenty or thirty—and it was possible to watch them at play. They would hold merry tourney on the water, chasing and ducking one another, gagging excitedly, all joining in excited approbation or derision from time to time. One bird would then take wing, followed by all the others, for a turn in the air, and then they would career round in reckless dashing flight—wheeling, twisting, doubling, stooping, and rising—to return to the water with a sounding splash. When put up, this Widgeon usually makes a detour and comes back overhead, sometimes again and again, often so high as to be quite out of gunshot. I killed this female in this way, at a great height, with a single pellet of No. 4 shot, in sheer desperation, after the company of four or five had come overhead several times. For the male, I have to thank Mr. J. G. Cameron, who shot it when we were out together, and himself skinned it in most creditable style. Several times I have seen a pair of these birds with young, unable to fly, but never found a nest.

Capt. Abbott describes this Widgeon as one of the wildest and scarcest birds in the Falkland Islands.

In the Province of Buenos Ayres, Durnford says:—"The greater part that come here are winter visitors, but a few breed amongst the reeds and coarse grass in some of the extensive marshes. Like *Metopiana peposaca*, it prefers large lagoons to the small pools and streams frequented by the smaller ducks, and is generally shy and flies very high." In the Chupat Valley he records it "common throughout the valley and at the mouth of the river, at the latter place feeding on the extensive mussel-beds in company with *A. spinicauda*." In Central Patagonia—"The

commonest Duck met with during our journey, and nesting abundantly at the mouth of the Sengelen."

The stomach of the female contained digested grass and sand: the bird itself weighed 1 pound 12 ounces.

DAFILA SPINICAUDA (Vieillot)

Pato del cola aguda, Azara, *Pájaros, Paraguay y La Plata*, iii, p. 421, 1805.

Anas spinicauda, Vieillot, *Nouv. Dict. d'Hist. Nat.*, v, p. 135, 1816.

Dafila urophasianus, Gould and Darwin, *Voy. "Beagle," Birds*, p. 135, 1841; Abbott, *Ibis*, p. 160, 1861.

Dafila spinicauda, Durnford, *Ibis*, pp. 41, 192, 1877; Sclater and Hudson, *Argentine Orn.*, ii, p. 134, 1889; Oustalet, *Mis. Sci. Cap Horn, Ois.*, p. 209, 1891; Salvadori, *Cat. Birds Brit. Mus.*, xxvii, p. 279, 1895; Oates, *Cat. Birds' Eggs Brit. Mus.*, ii, p. 173, 1902.

Habitat.—Southern Brazil and Southern Peru, to Tierra del Fuego; the Falkland Islands.

♂, Useless Bay Settlement, 16th Sept.; eggs, Sara Settlement, 19th Oct., 1904.

Iris—black; bill—bright yellow, centre black; legs and feet—grey.

The Brown Pintail is perhaps the commonest Duck in the island, and is the first migrant of its kind to arrive on the break up of winter. These birds give good sport, and are a welcome addition to the daily fare. They come back overhead again and again, even when shot at, giving sporting shots; higher and higher they come, until the tallest shot cannot pull them down.

In the Falkland Islands, Abbott says, this Duck "occurs rather sparingly in the interior on the fresh-water ponds, where it is resident all the year round. It never utters any sound or note, either when rising or flying in the air—a singular exception to the general custom of the Duck-tribe."

In the Province of Buenos Ayres, Durnford found it:—"The commonest of the larger species of Ducks, and in the winter





A FOREST STREAM

found in very large flocks." In the Chupat Valley he again found it:—"The most numerous species of Duck, nesting in thick grass in the vicinity of the river. Large flocks were feeding on the mussel-beds just outside the harbour." He mentions that the colonists trap these birds at night when they come to feed on the wheat stubbles.

The Pintail breeds in the long grass in bottoms, also on the higher ground where there is covert not far from water.

At Sara Settlement, on Oct. 19th, I found a nest in long grass containing seven eggs, two of which I took. These eggs are of exactly the same shape, size, and colour: oval, cream colour, 2·1 by 1·5 inches.

This bird weighed 1 pound 6 ounces.

QUERQUEDULA FLAVIROSTRIS (Vieillot)

Pato del pico amarillo y negro, Azara, *Páxaros, Paraguay y La Plata*, iii, p. 448, 1805.

Anas flavirostris, Vieillot, *Nouv. Dict. d'Hist. Nat.*, v, p. 107, 1816.

Querquedula creccoides, Gould and Darwin, *Voy. "Beagle," Birds*, p. 135, 1841; Cassin, *U.S. Astron. Exp.*, ii, p. 203, pl. xxvi, 1855; Abbott, *Ibis*, p. 160, 1861.

Querquedula flavirostris, Durnford, *Ibis*, pp. 41, 191, 1877; Sclater and Hudson, *Argentine Orn.*, iii, p. 131, 1889; Oustalet, *Miss. Sci. Cap Horn, Ois.*, p. 205, 1891.

Nettion flavirostre, Salvadori, *Cat. Birds Brit. Mus.*, xxvii, p. 261, 1895.

Habitat.—Southern Brazil, the Argentine Republic, and Chili, to Tierra del Fuego; the Falkland Islands.

♂, Rio McClelland Settlement, 6th Jan.; ♂, 10th Jan., 1905.

Iris—black; bill—yellow, centre dark grey; legs—greenish drab.

Many expeditions record the Yellow-billed Teal. By King it was obtained in the Strait of Magellan, and by Darwin

there also and in La Plata. There are specimens in the British Museum collected by the "Erebus" and "Terror" at Hermite Island and the Falkland Islands.

This is one of the latest migratory Duck, arriving the end of September or early in October. It frequents, alike, inland fresh waters and the sea coast, where at low tide it lurks in pools amongst the rocks, after the manner of the British Teal (*Q. crecca*). The mouth of a stream, no matter how small, is a favourite haunt. There is no tamer Duck in these regions. If unmolested in settlements, it becomes practically as tame as domestic water-fowl. At Cheena Creek there were always some in the stream or resting on its grassy banks, in the garden within gunshot of the manager's house. This Teal breeds in the island. I have seen and shot young birds hardly able to fly, but never found any eggs.

Darwin observes it is "a true Teal, and in size and form closely assimilates to the Common Teal of Europe and to the species inhabiting North America (*Querquedula carolinensis*)."
This is confirmed by Durnford, who says:—"This and the following species (*Querquedula cyanoptera*) have very much the habits of our little Teal at home—when flushed, following the course of the stream and dropping suddenly."

In the Falkland Islands, Abbott found large flocks in some of the freshwater streams. He took a nest as early as the 18th September. He says of this, that it "is more difficult to find than that of any other bird that I know of. It is placed in the dry grass in some out-of-the-way valley that no one frequents; and this is the more remarkable as the birds, when found in a stream or pond, are very tame. The complement of eggs is five."

The weight of this bird averages some 14 ounces.

QUERQUEDULA VERSICOLOR (Vieillot)

Pato del pico de tres colores, Azara, *Páxaros, Paraguay y la Plata*, iii, p. 450, 1805.

Anas versicolor, Vieillot, *Nouv. Dict. d'Hist. Nat.*, v, p. 109. 1816.

Cyanopterus fretensis, Jardine and Selby, *Illustrations Orn.*, iv, pl. xxix, 1836.

Querquedula versicolor, Abbott, *Ibis*, p. 161, 1861; Durnford, *Ibis*, pp. 41, 191, 1877; Sclater and Hudson, *Argentine Orn.*, ii. p. 131, 1889; Oustalet, *Miss. Sci. Cap Horn, Ois.*, p. 207, 1891; Salvadori, *Cat. Birds Brit. Mus.*, xxvii, p. 291, 1895.

Habitat.—Paraguay, the Argentine Republic, and Chili, to Tierra del Fuego; the Falkland Islands.

♂, Useless Bay Settlement, 20th Sept., 1904.

Iris—dark brown; bill—sky blue, upper portion yellow; legs—grey.

There is no mention of the Grey Teal by Darwin.

This bird arrives in the island rather later than *Dafla spinicauda*, and probably breeds, though I have no certain knowledge of this. I first remarked it in Useless Bay marshes about September 15th. It is fairly common, yet not plentiful. Usually it occurs in pairs or companies of five or six. I have never seen it in any considerable numbers, like *A. cristata*, *M. sibilatrix*, or *D. spinicauda*. It frequents streams and pools. It is quiet, retiring, and tame. If put up, it usually flies round and low—not overhead like *M. sibilatrix* and *D. spinicauda*. It is sluggish in habit and loath to travel any distance.

“It is not common in East Falkland,” Abbott says, “occurring in but few places, but where found is generally seen in numbers.” Young birds were brought to him, and, no doubt, it breeds there.

In the Chupat Valley, Patagonia, Durnford found it rare. During his visit he only saw two, a male and female, which had been shot near the village. In the Province of Buenos Ayres, however, it was very common, many breeding in the neigh-

bourhood. "Flocks of this species," he says, "do not mix with those of any other, but their flight and habits are similar to those of *Q. flavirostris*." In Central Patagonia he found it resident.

TACHYERES CINEREUS (Gmelin)

Oye Grise, Oye du Plein, *Pernety, Voy. Iles Malouines*, ii, p. 570, 1769.

Race Horse Duck, *Cook, Voy. "Resolution" and "Adventure,"* ii, pp. 186, 205, 1777.

Anas cinerea, *Gmelin, Systema Naturæ*, i, p. 506, 1788.

Anas brachyptera, *Quoy et Gaimard, Zool. Voy. "Uranie,"* p. 139, pl. xxxix, 1824.

Oidemia patachonica, *King, Zool. Journ.*, iv, p. 100, 1828.

Micropterus patachonicus, *King, Pro. Zool. Soc.*, p. 15, 1830; *Abbott, Ibis*, p. 162, 1861; *Cunningham, Nat. Hist. Strait Magellan*, pp. 91-98, 475, 1871; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 229, pl. v, 1891.

Micropterus brachypterus, *Gould and Darwin, Voy. "Beagle," Birds*, p. 136, 1841.

Steamer Duck, *King, Surveying Voyages "Adventure" and "Beagle,"* i, p. 35, 1839.

Micropterus cinereus, *Abbott, Ibis*, p. 161, 1861; *Cunningham Trans. Zool. Soc.*, vii, pp. 493-501, pls. 58-62 (*Anatomy*), 1871; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 212, pl. iv, 1891.

Tachyeres cinereus, *Salvadori, Cat. Birds Brit. Mus.*, xxvii, p. 373, 1895; *Oates, Cat. Birds' Eggs Brit. Mus.*, ii, p. 184, 1902.

Habitat.—Chili as far north as Valdivia, to Tierra del Fuego; the Falkland Islands.

Five eggs, Useless Bay, 10th Jan., 1905.

The Race Horse, Loggerhead, or Steamer Duck has constituted one of the wonders of these waters from the time of the earliest navigators, and has been the subject of much controversy. The question of whether one or two species are to be admitted has been finally determined in favour of one in the opinion of the majority, although so recent an authority as Dr.

Oustalet devotes twenty quarto pages and two plates to maintaining two. To this day the sheepmen of Tierra del Fuego are puzzled what to make of this bird: some are aware that it can fly; the majority are of opinion that it cannot. I do not think I came across one who had definitely arrived at the knowledge that the power of flight could be possessed by some individuals and lacking in others.

None of the old voyagers mention having seen this Duck on the wing.

The earliest record of it appears to be that of Pedro Sarmiento de Gamboa in 1580, who tells us of "*Patos pardas y bermejas sui pluma que ne vuelan, sinó á vuela pié corren, y par el agua no se pueden levantar sino á vuela pie, dando con las alones á manero de remo. Huyen por el agua con mucho velocidad, y desan un rastro por el agua como un bajel quando vaga.*"

Amongst the birds on which the survivors of the ill-fated "Wager" subsisted on the Guaianeco Islands in 1740—than whom probably no men ever underwent more terrible privations—Byron mentions one "much larger than a Goose, which we called the Race Horse, from the velocity with which it moved upon the surface of the waters, in a sort of half-flying half-running motion."

Pernety alludes to it in the Falkland Islands in 1764 as:—"Une espece de Canard, qui va par paires, quelquefois en troupe, dont les plumes des ailes sont très courtes; aussi ne s'en sert-il que pour se soutenir en courant sur l'eau, & ne vole pas. Si on ne le tue pas roide, it fuit à la surface tant qu'il lui reste un souffle de vie. Sa chair est huileuse & sent le marécage."

In December 1774, Cook describes Christmas Sound on the south coast of Tierra del Fuego, of which he gives an excellent drawing. "Here," says he, "is a kind of Duck called by our people Race-horses, on account of the great swiftness with which they run on the water; for they cannot fly, the wings being too short to support the body in the air."

Darwin never observed these birds on the wing, as he says :—
“Their wings are too small and weak to allow of flight; but by their aid, partly swimming and partly flapping the surface of the water, they move very quickly. The manner is something like that by which the common house Duck escapes, when pursued by a dog ; but I am nearly sure that the Steamer moves its wings alternately, instead of, as in other birds, both together. . . . When pluming themselves in the evening in a flock they make an odd mixture of sounds, somewhat like bull-frogs within the Tropics.”

Capt. Abbott maintains two species. Of *M. cinereus* he says :—“This Duck frequents salt water. The harbour of Stanley is full of them, as well as every other part of the coast. Each pair has a certain district, where they take up their quarters, diving for shell-fish and whatever the tide throws up, and driving away any other of their species that may come within their bounds. This Duck lays from the end of September to the end of November, making its nest either in the long grass or bush of some kind. Whenever a male bird is seen by himself on the water during the breeding season, the female will be found sitting somewhere in a line perpendicular to the shore opposite to him, and generally not very far off. My dog once found seven nests, all with the old bird on, in a small grass valley a short way from the beach at Mare Harbour. Seven is the usual number of eggs, though sometimes eight or nine are found.” To *M. patachonicus* he ascribes the habit of frequenting rather the freshwater ponds near the sea, and of being somewhat more wary. Of this he shot one example, and found a nest with seven eggs. He saw “the flying Loggerhead take long flights.”

Dr. Cunningham says :—“It is generally to be observed in pairs, or small flocks of six or seven individuals, stationed on the rocks, or swimming about in the extensive beds of the ‘kelp,’ which girdles the coast in most spots ; but, occasionally large flocks, composed of many hundreds, are to be met with. When

undisturbed in the water they swim quietly along, producing two peculiar notes—that of the male being a sort of mew rapidly repeated, while that of the female is a kind of deep growl—and diligently searching the fronds of the kelp for the animals to be found thereon, or diving for mussels, which appear to be one of their staple articles of diet, as I always found fragments of the shells in the stomachs of those I examined. The stomach is a most powerful organ, with very thick muscular coats, and the lower part of the windpipe or trachea of the male possesses an enlargement of considerable size. . . . When alarmed at the prospect of impending danger, they lose no time in getting up steam, paddling through the water at a marvellous rate by dint of flapping their little wings, the motion of which is so excessively rapid, that it is difficult to convince oneself that they are not revolving, leaving a long wake of foam like that produced by a miniature steamer behind them, and not ceasing this method of progression till a safe distance has intervened between them and the object of their dread. They often assist their escape, in addition, by diving, and coming up to the surface at a distance of many yards in a direction upon which it is impossible to calculate, when they show their heads for a moment, and then repeat the manoeuvre.”

As regards the size and weight of the Steamer Duck, there is great divergence of opinion.

Pernety states:—“Chacun de ces Canards pese ordinairement de 19 à 20 livres au moins.”

At Staten Island, Cook mentions:—“We shot some, and found them to weigh twenty-nine or thirty pounds; those who eat of them said they were very good.”

“It is a gigantic Duck, the largest I have met with,” observes King in Eagle Bay in 1827. “It moves with astonishing velocity. It would not be an exaggeration to state its speed at from twelve to fifteen miles an hour. The largest we found measured forty inches from the extremity of the bill, to that of the tail, and weighed thirteen pounds. . . . It is very difficult to kill them, on account of their wariness and thick coat of

feathers, which is impenetrable by anything smaller than swan shot. The flavour of their flesh is so strong and fishy, that at first we killed them solely for specimens. Five or six months, however, on salt provisions, taught many to think such food palatable, and the seamen never lost an opportunity of eating them. I have preferred these Ducks to salt beef, but more as a preventive against scurvy, than from liking their taste."

Darwin states this Duck sometimes weighs as much as twenty-two pounds.

Cunningham records no weight, and sets the average length of adult birds at about thirty inches.

Previous observers confine themselves almost wholly to these birds in marine waters. In Tierra del Fuego, I have frequently seen them inland as much as ten or fifteen miles, passing from one piece of water to another, and also—more often—on lagoons unable to fly. What they live on in inland fresh waters, it would be interesting to know. Inland, I have invariably found them in pairs—and once a single bird on the Rio San Martin. On the sea coast, I have seen them in pairs, and in small companies of three or four together. If heavily built—and they are of amazingly massive proportions, particularly as regards the head and neck—they are sharp-sighted and sharp-witted. They fly or paddle out of range on the least appearance of danger. Particularly is this the case with birds on the sea shore. They have nothing of that element of curiosity about them, which is remarkable in *Æchmophorus major* so often found in the same waters in close company. Common as these Ducks are in small scattered communities, I did not obtain a specimen. I shot several at various times, but somehow was always prevented by some untoward circumstance from skinning one. Once I shot a fine male, one of a pair unable to fly, on a pan near the mouth of the Rio San Martin, but could not convey it home in proper condition for skinning: my haversack broke under the weight, and having no saddlebags, and being burdened by a gun, it had to be abandoned. Frequently I found these birds lying dead

inland, starved to death apparently, through the freezing of their waters. None I have handled would have weighed over twelve or fourteen pounds.

Of the Steamer Duck breeding inland I have no knowledge. On January 10th, I took a nest containing five eggs on the southern shore of Useless Bay. It was built entirely of grey down, in the kelp, only a few feet above high tide mark on the outskirts of a breeding colony of *Sterna hirundinacea*. I ate one of the eggs, which was excellent. The three I have preserved differ in no respect from the average examples in the British Museum. They are of broad oval shape, a little larger in diameter at the large end; of pale cream colour, smooth and glossy; measuring respectively 3·2 by 2·3, 3·3 by 2·3, and 3·2 by 2·2 inches.

RALLI

Family RALLIDÆ

FULICA LEUCOPTERA (Vieillot)

Focha, Azara, *Páxaros, Paraguay y La Plata*, iii, p. 472, 1805.

Fulica leucoptera, Vieillot, *Nouv. Dict. d'Hist. Nat.*, xii, p. 48, 1817; Durnford, *Ibis*, p. 195, 1877; Sclater and Hudson, *Argentine Orn.*, ii, p. 158, 1889; Oustalet, *Miss. Sci. Cap Horn, Ois.*, p. 134, 1891; Sharpe, *Cat. Birds Brit. Mus.*, xxiii, p. 224, 1894.

Habitat.—Southern Brazil, Bolivia, and Peru, to Tierra del Fuego.

♀, Useless Bay Settlement, 29th Jan., 1905.

Iris—magenta; bill—greenish yellow, nostril orange; legs and feet—olive-green.

The Yellow-billed Coot is common at the head of Useless Bay in the deeper fresh-water lagoons and pools where there is floating weed, and where it is not easily got at owing to the treacherous nature of the ground.

It is not mentioned by Darwin.

In the Province of Buenos Ayres, Durnford found this Coot common in almost every "arroyo" and lagoon where reeds and aquatic plants afford any cover.

LIMICOLÆ

Family CHARADRIIDÆ

BELONOPTERUS CHILENSIS (Molina)

Parra chilensis, *Molina, Saggio Storia Naturale Chili*, p. 239, 1789.

Philomachus cayanus (*nec Latham*), *Gould and Darwin, Voy. "Beagle," Birds*, p. 127, 1841.

Hoplopterus cayanus (*nec Latham*), *Abbott, Ibis*, p. 155, 1861.

Vanellus occidentalis, *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 117, 1891.

Belonopterus chilensis, *Sharpe, Cat. Birds Brit. Mus.*, xxiv, p. 165, 1896; *Oates, Cat. Birds' Eggs Brit. Mus.*, ii, p. 14, 1902.

Habitat.—Peru, Chili, and Patagonia, to Tierra del Fuego; the Falkland Islands.

♂, San Sebastian Settlement, 23rd Oct.; egg, Useless Bay Settlement, Oct., 1904.

Iris and eyelids—magenta; bill—posterior portion, crimson, remainder black; spurs on wings—magenta; legs—black, merging into magenta at the knee.

Dr. Sharpe distinguishes the Chilian Spurwinged Plover from the nearly allied more northerly *B. cayennensis* (Gmelin) by being larger, having the head, neck, and sides of the face clear ashy-grey instead of brown, the white tips of the tail broader, and the black occupying the whole breast.

The total length is stated to be male 14·4, female 15·5; as against *B. cayennensis*, male 12·5, female 13·5 inches.

V. cayennensis of Durnford from Buenos Ayres and Patagonia, is accepted as such by Sharpe, though considerably

south of its range as defined by him—"Colombia and Guiana to Central and Southern Brazil."

The Tero-Tero has a personality which at once claims recognition—and thereafter constant execration. It arrives in the island on the first break-up of winter. Here and there I remarked a pair in the early days of September. These birds were then comparatively quiet and subdued in tone : later, when plentiful, they became tyrants. Their special charge appears to be to harrass man. Walk or ride where you will in the open lowlands, and they are coming for you or overhead, their harsh querulous screams ever audible—even in bed at nights. After accompanying one for a time, they sheer off and settle at a distance, there to scream out a tell-tale warning, and then perhaps again return to annoy one more closely.

Partly to pay off old scores, partly to experiment on them as food, I once had an afternoon's sport at their expense. Shooting them proved the more satisfactory operation. They have ample breasts, but the flesh is hard and strong-flavoured. During spring and summer they scatter all over the open lowlands in pairs, to breed. In autumn it proved a novel spectacle to see them in flocks of two hundred or so, preparatory to leaving the island. The proportion sum then suggested itself:—"It one pair of Tero-Tero's can make so much noise, how much will a hundred pairs make?"

"*Tero-tero*"! I hear them now, seven thousand miles away!

"In many respects," says Darwin, "they resemble our Peewits (*Vanellus cristatus*), and frequent generally in pairs, open grass-land, and especially the neighbourhood of lakes. As the Peewit takes its name from the sound of its voice, so does the "Tero-Tero." While riding over the grassy plains, one is constantly pursued by these birds, which appear to hate mankind, and I am sure deserve to be hated, for their never ceasing unvaried harsh screams. The stillness of the night is often disturbed by them. To the sportsman they are most

annoying, by announcing to every other bird and animal his approach."

The Tero-Tero would seem to be rare in the Falkland Islands, for Capt. Abbott obtained a single example, and mentions another being seen a short time afterwards.

Common as the nests of these birds must be, I never found more than some broken egg shells. An egg given me by Mr. Betts of Useless Bay Settlement is pyriform, inclining to oval, resembling in shape rather the egg of a Snipe than of a Peewit. The colour is olive, marked somewhat finely with black spots over the entire surface. It measures 2·05 by 1·4 inches. The series in the British Museum consists of five with the green ground somewhat faded, and one rufous brown.

EUDROMIAS MODESTA (Lichtenstein)

Charadrius modestus, *Lichtenstein, Verzeich. Doubl. Zool. Mus. Berlin*, p. 71, 1823.

Vanellus cincta, *Lesson et Garnot, Voy. "Coquille," i*, p. 126, pl. xliii, 1826.

Charadrius rubecola, *King, Zool. Journ.*, iv, p. 96, 1829; *Seebohm, Geogr. Distrib. Charadriidæ*, pl. i, 1887.

Squatarola cincta, **S. fusca**, *Gould and Darwin, Voy. "Beagle," Birds*, p. 126, 1841.

Eudromias urvillii, *Abbott, Ibis*, p. 155, 1861.

Eudromias modesta, *Durnford, Ibis*, p. 197, 1877, p. 402, 1878; *Sclater and Hudson, Argentine Orn.*, ii, p. 171, 1889.

Zonibyx modesta, *Sharpe, Cat. Birds Brit. Mus.*, xxiv, p. 238, 1896.

Habitat.—Uruguay and the Argentine Republic, to Tierra del Fuego; the Falkland Islands.

♂, ♂, Cheena Creek Settlement, 17th Nov., 1904.

Iris—brown; bill—black; legs—greenish-drab.

The Red-breasted Plover arrives in the island a little later than the Tero-Tero. I saw my first pair on dry grass-land

when crossing the island on the 20th of September. A month later, I saw another pair in similar country on the track between Useless Bay Settlement and Cheena Creek. Subsequently it proved plentiful in pairs on the summit of the Cheena Creek Range.

Eudromias is a bird of extraordinarily variable haunt. It differs from other Plovers in these regions in being found almost solely on dry grass-land and on the tops of mountain ranges : never once did I see it in a marshy place, and only once a small flock of three on the sea shore. On the Cheena Creek Range I found it breeding; and caught one of the young on the 14th of November. It is a wild restless bird, which I had some difficulty in shooting with the .410. The flight is low and rapid : it gets away quickly, and usually compassing a good long distance, alights on a hummock of *Azorella*. The call is curiously melancholy : a long-drawn plaintive musical "*P-i-i-r-u*," as it were bewailing the solitude of these bleak wind-swept regions, where hardly another bird was to be seen except *Attagis* and a single example of *Myiotheretes rufiventris*.

On making the first ascent of the mountain named after him in February 1827, Surgeon Tarn, of the "Adventure," shot two examples at about 2,000 ft. alt.

Darwin records the Red-breasted Plover from Tierra del Fuego, where it inhabited both the sea shore and the bare summits of the mountains; from the Falkland Islands, where it frequented the upland marshes; from Chiloe, where he met with large flocks in the fields not far from the coast; and from Uruguay, on inland grassy plains.

Capt. Abbott says it is a migrant in the Falkland Islands, where it first appears in the beginning of September, when the dry peat-banks in all parts are covered with these birds. The breast plumage is then of a beautiful red. It lays the first week in October, placing its eggs, which are two in number, on the dry moss, without making any nest. The eggs are so nearly the colour of the surrounding ground that one

almost treads on them before seeing them. He sometimes, however, found the eggs placed under the shelter of a bush. After the breeding season the bright colour on the breast fades away. In the month of February they commence to gather in flocks along the coast, and by the end of April disappear entirely.

In the Province of Buenos Ayres, Durnford found this Plover an autumn and winter visitor, in large flocks. In Central Patagonia, he met with large flocks which arrived with a strong S.E. wind.

The stomach of one of my specimens contained large burrowing larvæ : the other, insects of many kinds and some gravel.

ÆGIALITIS FALKLANDICA (Latham)

Charadrius falklandicus, *Latham, Index Orn.*, ii, p. 747, 1790 ;
Oustalet, Miss. Sci. Cap. Horn, Ois., p. 114, 1891.

Ægialitis falklandica, *Abbott, Ibis*, p. 155, 1861 ; *Durnford, Ibis*,
1878, p. 402 ; *Sclater and Hudson, Argentine Orn.*, ii, p. 172, 1889 ;
Sharpe, Cat. Birds Brit. Mus., xxiv, p. 295, 1896.

Habitat.—The Argentine Republic and Chili, to Tierra del Fuego ; the Falkland Islands.

♂, ♀, Useless Bay Settlement, 30th Aug., 1904.

Iris—dark brown ; bill and legs—black.

The Double-belted Plover is the earliest migrant of its kind. I observed a small flock in Useless Bay marshes on 29th August ; and they rapidly increased in numbers as spring set in. At first, they were somewhat wild ; later, they became extremely tame, though they always exhibited much distress should one happen to invade their breeding grounds—a patch of shingle or sandy earth in the vicinity of water.

They are common on the shores of fresh-water lagoons, on marshy grass-land, and on the sea shore—especially on the mud-banks at low tide, in company with *Tringa fuscicollis*. Their ordinary call is a plaintive “ *W-h-i-t-t.*”



2/7

PLUVIANTILLUS SOCIABILIS

Like Golden Plover (*Charadrius pluvialis*), at times they indulge in high, wild, dashing flight, careering and wheeling hither and thither, uttering a twittering whistle.

Capt. Abbott says this Plover arrives in the Falkland Islands about the beginning of September and breeds shortly afterwards, although he also found a nest with fresh eggs in October. The eggs are generally laid on a bank at a short distance from the beach, without any nest, being merely deposited in a hole.

In Central Patagonia, Durnford records it resident, and plentiful on the banks of Lake Colguape and up the Sengel R. The nest he describes as a mere hollow scraped in the sand, and paved with fragments of small shells. The eggs are of a sandy ground colour, spotted and streaked, chiefly at the large end, with black. They measure 1·4 by 1 inches.

PLUVIANELLUS SOCIABILIS (Hombron et Jacquinot)

Pluvianellus sociabilis, *Hombron et Jacquinot, Voy. "Astrolabe" et "Zélée," Zool.*, iii, p. 125, pl. xxx, 1853; *Seebohm, Geogr. Distrib. Charadriidæ*, p. 107, pl. ii, 1888; *Sharpe, Cat. Birds Brit. Mus.*, xxiv, p. 303, 1896.

Habitat—Patagonia and Tierra del Fuego.

♀, Useless Bay Settlement, 16th Sept., 1904; ♂, 5th Nov., 1904.

Iris—crimson; bill—black, nostril—dull crimson; legs and feet—coral pink, toe nails—black.

A single example of the exquisitely beautiful Magellan Plover was obtained by Capt. King in the "Adventure," but there appears to be no record of it in writing by him; and this bird was only described by Hombron and Jacquinot in 1853, from a specimen collected by the "Astrolabe" and "Zélée" Expedition. There are, I believe, only two specimens in British collections: namely, the above-mentioned

bird of King's in the British Museum; and a female from Tova Harbour, Patagonia, in the Rothschild Museum at Tring.

Previous descriptions and plates do not do this Plover justice: there are discrepancies in colour, and an important character in the plumage has been overlooked.

The British Museum specimen, sex unrecorded, measures:—Length, 7·5; culmen, 0·6; wing, 5·35; tarsus, 0·7; tail, 2·35 inches.

My two Tierra del Fuego examples measure:—

♂, Length, 8·5; culmen, 0·9; wing, 5·4; tarsus, 0·8; tail, 2·55 inches.

♀, Length, 8·3; culmen, 0·85; wing, 5·25; tarsus, 0·75; tail, 2·5 inches.

In the colouring of the sexes there is no apparent difference. Above, the colour is light grey; the darkest feathers are the primaries, the tail, and the lores, which are greyish black; the throat is pure white, rather than "greyish white." In the tail, the five lateral under coverts curl up over the sides, and envelop these in a manner not found in any other Plover.

"Il va par bandes très-nombreuses" is all that Hombron and Jacquinet record of its life history.

This Plover is not a common bird. In six months I saw five pairs, at various times, in various places. Once I remarked a pair high up on the shingle in San Sebastian Bay, in close proximity to a fresh-water lagoon inland. In all other cases I found these birds frequenting inland lagoons, with bare shores, where the water is pink with the minute crustacea on which they feed. At Black-necked Swan Lagoon, when chasing young Geese on horseback in February, I came across a pair with one young bird, which last proved so active that it escaped me and concealed itself in the rocks. So exactly do they assimilate the grey-coloured earth and pink water of their feeding grounds, that it is most difficult to distinguish them, even at very close range, when they are at rest: it is then their shadow, rather than their actual form, which reveals their presence in the clear,

soft sunlight of these high latitudes. They run about at a great pace, seeming quite to flit over the ground. The flight is dashing, headlong, and twisting—difficult to follow with the eye—and usually they negotiate a considerable distance before alighting again.

HÆMATOPUS LEUCOPUS (Lesson et Garnot)

Ostralega leucopus, *Lesson et Garnot, Voy. "Coquille,"* i, p. 721, 1826.

Hæmatopus leucopus, *Abbott, Ibis*, p. 156, 1861; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 121, 1891; *Sharpe, Cat. Birds Brit. Mus.*, xxiv, p. 113, 1896; *Oates, Cat. Birds' Eggs Brit. Mus.*, ii, p. 6, 1902.

Habitat.—Patagonia and Tierra del Fuego; the Falkland Islands.

♀, Useless Bay Settlement, 2nd Sept.; eggs, San Sebastian Settlement, 22nd Oct., 1904.

Iris and eyelids—orange; bill—scarlet; legs and feet—flesh-colour.

The Pied Oyster-catcher is distinguished by Dr. Sharpe from the British *H. ostralegus* and its allies by its black lower back and rump, the upper tail-coverts and base of tail being white; the greater part of the under wing-coverts being black; and primaries entirely black, without any white along the shaft or on the inner web.

Practically all expeditions record it, with the exception of Darwin and Durnford.

Unlike *H. ater*, I found the Pied Oyster-catcher extremely common, frequenting the sea shore in winter and the inland fresh-water lagoons and grass flats in spring and summer. Previous observers do not mention its being found inland. On arrival in the island in August, I remarked two pairs on the fresh-water lagoons at the head of Useless Bay. They were then so wild as to be almost unapproachable. Later, when the weather became warmer, they appeared in vast numbers and were exceedingly

tame, though aggressive to man. No bird is more conspicuous or numerous on the open flats, Geese excepted. Everywhere the plaintive "*Pi-yi*" is audible, shrill and ear-piercing at close quarters, silvery and soft in the distance.

As one rides or walks, these birds continually fly at one, coming away from the ground in time only to clear one's head with a whiz of their massive wings and an ear-piercing "*Pi-yi*," making one almost raise one's hand in defence against the formidable scarlet bill. After tilting at one in this fashion, they circle round, descend, and skimming the ground, come at one again as before from in front. On the ground, they often assume a curious posture—back to the wind, neck stretched out, tail blown over the head.

Inland they feed mainly on large white larvæ, which they find in the ground.

These Oyster-catchers breed freely on the open grass flats. Several times I have come on their nests, placed in the slightly raised hillocks—which cover the ground and make walking so difficult in these regions—with fragments of egg shells, but never any eggs entire.

In the Falkland Islands, Capt. Abbott found this bird common along the sea coast, laying its eggs in the beginning of October, sometimes on the sea shore, but more frequently a little way inland, on a dry, sandy soil.

At San Sebastian Settlement, at the end of October, I was given a remarkable pair of eggs by Mr. Merton. They are very blunt ovals; almost olive, finely and evenly marked with black spots and blotches over the entire surface; they measure 2·05 by 1·65 and 2 by 1·65 inches. They do not exactly resemble any one of the series in the British Museum: the latter are mostly longer in the axis, not one is as broad, and not one exactly corresponds in colour.

The Ona name is "*Sett*."

HÆMATOPUS ATER (Lesson)

Hæmatopus niger (*nec Pallas*), *Quoy et Gaimard, Zool. Voy.*
" *Uranie*," i, p. 129, pl. xxxiv, 1824.

Ostralega atra, *Lesson, Traité d'Orn.*, p. 548, 1831.

Hæmatopus ater, *Abbott, Ibis*, p. 155, 1861; *Durnford, Ibis*, p. 403,
1878; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 119, 1891; *Sharpe,*
Cat. Birds Brit. Mus., xxiv, p. 121, 1896.

Habitat.—Central Patagonia on the east, Peru on the west, to Tierra del Fuego; the Falkland Islands.

♂ Admiralty Sound, 19th Jan., 1905.

Iris and eyelids—orange; bill—scarlet; legs and feet—pale flesh colour.

The Black Oyster-catcher is recorded by the majority of expeditions, with the exception of Darwin—who did not meet with either this species or *H. leucopus*. Durnford observed it on Tombo Point, Central Patagonia, which appears to be its most northerly recorded range on the east coast.

This Oyster-catcher seems common in other parts of the island, and is, I believe, extremely common in the Falkland Islands. I found it rare. I saw only three, all on the sea shore, a pair near the southern point of Useless Bay, and this single example on a spit of shingle at the entrance to Admiralty Sound.

It appears to be entirely a shore form: I saw vast numbers of *H. leucopus* inland during spring and summer, but never one of this species.

According to Capt. Abbott, in the Falkland Islands the Black Oyster-catcher lays its eggs in the beginning of November, just one month later than *H. leucopus*. A hole, formed in the shingle just above high-water mark, generally on a point running out, is its favourite nesting-place.

There were remains of shell-fish in this bird's stomach.

Family SCOLOPACIDÆ

GALLINAGO PARAGUAYÆ (Vieillot)

Becasina, *Azara, Pájaros, Paraguay y La Plata*, iii, p. 270, 1805.

Scolopax paraguayæ, *Vieillot, Nouv. Dict. d'Hist. Nat.*, iii, p. 356, 1816;
Gould and Darwin, Voy. "Beagle," Birds, p. 131, 1841.

Scolopax magellanicus, *King. Zool. Journ.*, iv, p. 93, 1828; *Gould and Darwin, Voy. "Beagle," Birds*, p. 131, 1841.

Gallinago magellanicus, *Abbott, Ibis*, p. 156, 1861.

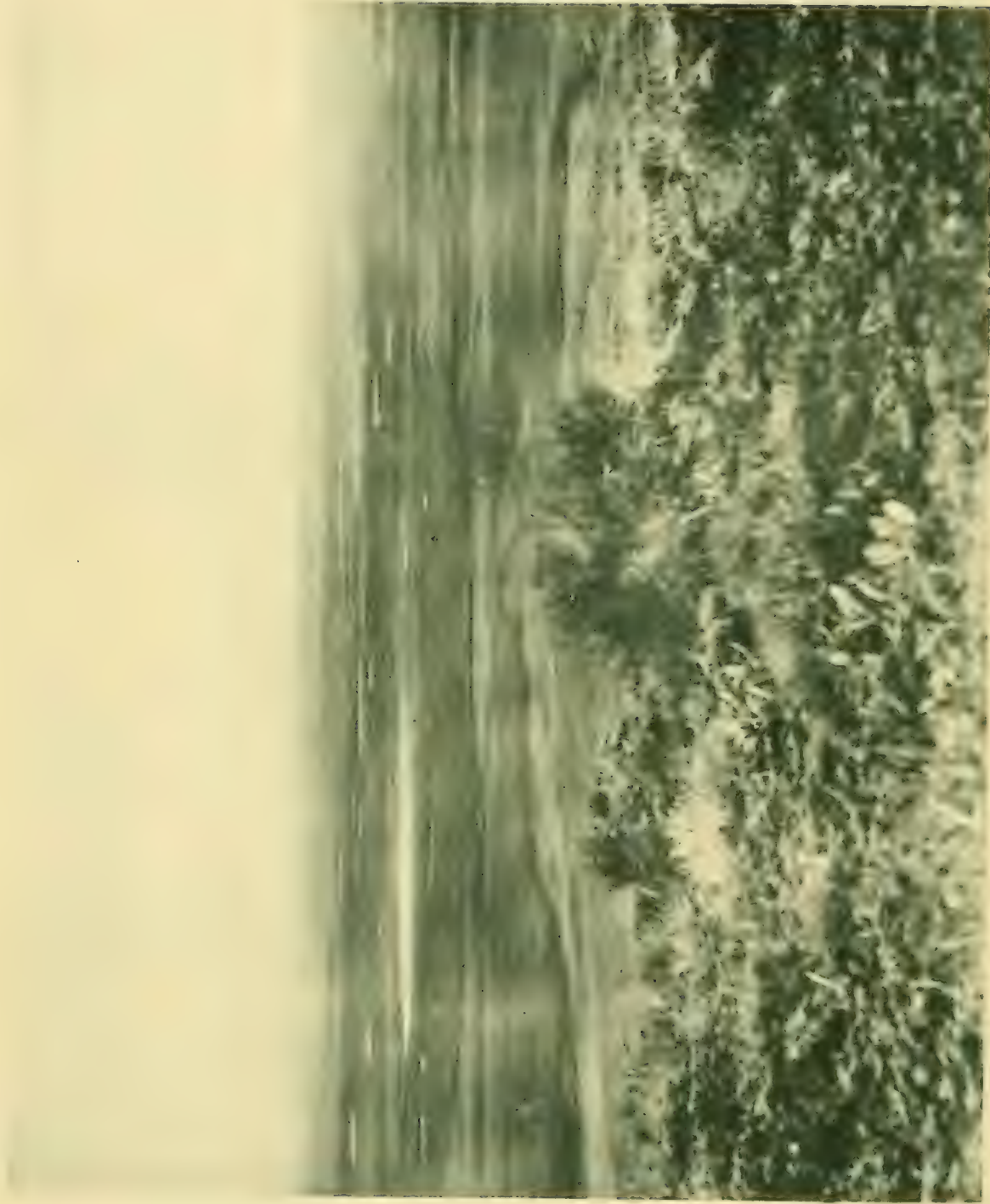
Gallinago paraguayæ, *Durnford, Ibis*, 1877, p. 198; *Sclater and Hudson, Argentine Orn.*, ii, p. 181, 1889; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 124, 1891; *Sharpe, Cat. Birds Brit. Mus.* xxiv, p. 650, 1896; *Oates, Cat. Birds' Eggs Brit. Mus.*, ii, p. 63, 1902.

Habitat.—South America, south of the Equator (except Ecuador and Peru), to Tierra del Fuego; the Falkland Islands.

♀, Useless Bay Settlement, 31st Aug.; ♀, 7th Sept.; ♂, San Sebastian Settlement, 30th Oct.; nest and eggs, Cheena Creek Settlement, 17th Nov., 1904.

Iris—dark brown; bill—brown; legs—greenish yellow.

The Paraguayan Snipe arrives in the island on the break up of winter and breeds in vast numbers. The earliest record I have of its appearance is August 31st, when a specimen was brought me by a cattleman who had killed it with his whip. From that time onwards I saw an odd bird or two in the marshes at the head of Useless Bay, but never any considerable number there, though the ground seemed suitable enough. There are vast numbers of these birds in the marshes at the mouth of the Rio San Martin. There are also a good many at Sara Settlement, at Cheena Creek, and in certain places on the downs to the south of Useless Bay. At San Sebastian Settlement, in October, when breeding, they are drumming in the air, forty or fifty at a time, day and night. By no means are they confined to the marshes: they are commonly met with in soft peaty places, away from water, in the Sierra Carmen Sylva. Like all Snipes, they are



THE ESTUARY OF THE RIO SAN MARTIN
A GREAT RESORT OF THE PARAGUAYAN SNIPE

wild at times: usually, they are tame. I have often shot them sitting with the .410.

Azara describes two species of Snipes in *Becasina prima* and *B. segunda*, but expresses himself somewhat doubtful about the latter, for he says "No lo asseguro absolutamente, bien que me lo parece."

Dr. Sharpe refers the former to this species, although Azara states it has fourteen tail feathers and the latter sixteen.

For the information of travellers and sportsmen who, like Admiral Kennedy, in "Sporting Sketches in South America," may not be aware of the value of a Snipe's tail in determining its species, I take the opportunity to note that there are sixteen feathers in the tail of the Paraguayan Snipe, as against fourteen in the Common Snipe of Great Britain.

Of the habits of these Snipes, Azara says that in Montevideo they call them *Aguateros*, "figurándose que anuncian lluvia quando al anochecer y romper el día, y á veces con la obscuridad, suben casi verticalmente á mucha altura; de donde se dexan caer abandonados plegadas las alas cabeza abaxo, sonando '*Bere Bere*' muchas veces continuas, y ántes de llegar al suelo vuelven á subir, repitiendo lo mismo algun rato. Verdad es que ignoro si la segunda especie usa esta práctica, y si canta '*Kaká*' como la primera al levantarse asustada. Habitan las costas cenagosas de las lagunas, ocultándose mucho en las yerbas y broza, sin dexarse ver en parages pelados, ni entrar en los bosques. Son seminocurnas y estacionarias: van solas ó con otra idéntica, y á veces hasta quatro; y son bastante ariscas, aunque se suelen levantar de muy cerca. Su alimento consiste sin duda en gusanos é insectos acuáticos; y yo solté una viva de la primera especie en mi quarto, donde vivió bastantes dias comiendo pedacillos de carne cruda."

Darwin says:—"Flight a very little less irregular and rapid than the English Snipe. I several times in May observed this species flying in lofty circles and suddenly stooping downwards, at the same time that it uttered a peculiar drumming noise, similar to that made by the English Snipe in summer, while breeding."

Capt. Abbott says the Paraguayan Snipe arrives in the Falkland Islands about the middle of August, and lays very soon afterwards, for he has taken eggs on the 1st of September. It mostly takes its departure in March, although a few stragglers remain all the year round.

In the Province of Buenos Ayres, Durnford found this Snipe for the greater part migratory, arriving in April and leaving in August; but though he did not find any nests, he felt sure some few breed in this neighbourhood. "During the winter they are sometimes extremely numerous," he says, "affording excellent sport; but their movements are very uncertain, for where there may be hundreds one day, the next there are scarcely any to be seen. At this season they go in small parties, or in flocks numbering three or four hundred birds. During the spring they go through the same aerial movements as the Common Snipe at home, rising to a great height by a circling motion, and 'drumming' whilst descending in a diagonal line."

The Paraguayan Snipe is paler coloured, and weighs less than any other full Snipe I have shot. My three examples weighed respectively $4\frac{1}{4}$, 4, and $3\frac{3}{4}$ ounces.

The eggs of this bird were to be had at San Sebastian Settlement about the end of September. I took a nest containing two eggs at Cheena Creek on November 17th. In shape these eggs are pyriform, in colour olive, spotted and blotched fairly evenly over the entire surface. They measure 1·7 by 1·2, and 1·6 by 1·25 inches respectively.

TRINGA FUSCICOLLIS (Vieillot)

Chorlito del pestorejo pardo, Azara, *Páxaros, Paraguay y La Plata*, iii, p. 322, 1805.

Tringa fuscicollis, Vieillot, *Nouv. Dict. d'Hist. Nat.*, xxxiv, p. 461, 1819;

Durnford, Ibis, p. 404, 1878; *Sclater and Hudson, Argentine Orn.*, ii, p. 185, 1889; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 127, 1891.

Tringa schinzii (*nec Brehm*), *Gould, Birds of Europe*, iv, pl. cccxxx, 1837.

Pelidna schinzii (*nec Brehm*), *Gould and Darwin, Voy. "Beagle," Birds*, p. 131, 1841.

Tringa bonapartii, *Abbott, Ibis*, p. 156, 1861.

Pelidna bonapartei, *Gould, Birds of Great Britain*, iv, pl. lxxi, 1873.

Heteropygia fuscicollis, *Sharpe, Cat. Birds Brit. Mus.*, xxiv, p. 574, 1896.

Habitat.—North America to its extreme north; West India Islands; South America and Tierra del Fuego; the Falkland Islands; Europe and Great Britain.

♀, Useless Bay Settlement, 17th Sept., 1904.

Iris, bill, and legs—black.

The Common Sandpiper has an extensive range, including Europe and Great Britain in rare instances. It is chiefly seen in large flocks on the mudflats of the sea shore at low water, and also to some extent on inland lagoons. The middle of September I first observed and shot a single pair on the margin of an inland fresh lagoon, but being on the eve of a journey across the island could not skin more than the better specimen of the two, which proved to be a female. No outward difference was noticeable in the sexes. Large flocks of these birds frequented the mudflats at low tide in San Sebastian Bay, at the time of my visit in September and October; and in company with them was *Ægialitis falklandica*.

Darwin found flocks common on the shores of the inland bays in the southern parts of Tierra del Fuego.

Abbott says this Sandpiper appears in the summer and breeds in the Falkland Islands.

In Central Patagonia, Durnford observed it "resident, common, and always in flocks."

LIMOSA HUDSONICA (Latham)

The Red-breasted Godwit, *Edwards, Nat. Hist. Birds*, iii, p. 138, pl. cxxxviii, 1750.

Scolopax hudsonica, *Latham, Index Orn.*, ii, p. 720, 1790.

Limosa hudsonica, *Gould and Darwin, Voy. "Beagle," Birds*, p. 129, 1841; *Abbott, Ibis*, p. 156, 1861; *Durnford, Ibis*, pp. 43, 200, 1877; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 291, 1891.

Limosa hæmastica, *Sclater and Hudson, Argent. Orn.*, ii, p. 191, 1889.

Habitat.—North and South America; the Falkland Islands.

Late in the summer small companies of what I believe to be the Red-breasted Godwit appeared on the sea shore to the south of Useless Bay. They were not plentiful. Two lots of less than a dozen were all I saw, and these were very wild: for nearly an hour I followed a small flock over very rough rocks without being able to get within shot.

In Chiloe and in the Falkland Islands, Darwin found this bird frequenting the tidal mud-banks in flocks.

Capt. Abbott describes it "wary and difficult to obtain by gunshot."

In Patagonia, Durnford observed a small flock feeding in company with *Tringa maculata* and a species of *Ægialitis*. Of its habits, he says:—"It nearly resembles the Bar-tailed Godwit at home."

Family THINOCORIDÆ

ATTAGIS MALOUINUS (Boddaert)

La Caille des Iles Malouines, *Buffon, Hist. Nat. Ois.*, ii, p. 477, pl. ccxxii, 1772.

Tetrao malouinus, *Boddaert, Table, Planches Enluminées D'Hist. Nat. D'Aubenton*, p. 13, 1783.

Attagis falklandica, *Gould and Darwin, Voy. "Beagle," Birds*, p. 117, 1841.



col.

West. Brown sc. imp.

AITAGIS MALQUINUS

Attagis malouinus, *Abbott, Ibis*, p. 154, 1861; *Sharpe, Cat. Birds Brit. Mus.*, xxiv, p. 716, 1896.

Attagis maluina, *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 107, 1891.

Habitat.—Patagonia and Tierra del Fuego; the Falkland Islands.

♀, Cheena Creek Settlement, 11th Nov.; ♀ ♀, 14th Nov., 1904.

Iris—light brown; bill—drab; legs and feet—pale fawn, varying almost to silver grey.

Of all the birds in Tierra del Fuego *Attagis* interested me most, whether from the naturalist's or sportsman's point of view. As the name implies, this species was originally described from the Falkland Islands.

The British Museum possesses a series of eight, several of which are from Hermite Island.

My Tierra del Fuego examples are distinctly more black and less rufous than any in the British Museum. They are also larger. In the Catalogue of Birds, the recorded measurements for the male are :—Length 11·0, culmen 0·6, wing 5·9, tarsus 0·75, tail 2·1 inches.

My three females measure :—

Length 11·5, culmen 0·7, wing 6·5, tarsus 0·8, tail 3·0 inches.

„ 11·2, „ 0·65, „ 6·8, „ 0·85, „ 2·9 „

„ 10·5, „ 0·65, „ 6·8, „ 0·85, „ 2·9 „

Previous observers have variously named *Attagis* a Quail, a Grouse, a Partridge, and an Ortyx. It has since been relegated to the Limicolæ, which it resembles in the structure of the sternum, furcula, and pelvis. Outwardly, on the other hand, it is a game bird, not only in general appearance, but in haunts, habits, and food. It has also the crop of a gallinaceous bird.

Attagis has the wildest haunt of any land bird in these regions, for which reason comparatively few expeditions record it, and little or nothing has been written of its life history.

The “Quail of a large and peculiar species,” mentioned by Fitzroy in the “Beagle” in 1830 as occurring at Cape

Gloucester—one of the extreme rugged storm-beaten points of land to the west of Desolation Island—is probably *Attagis*.

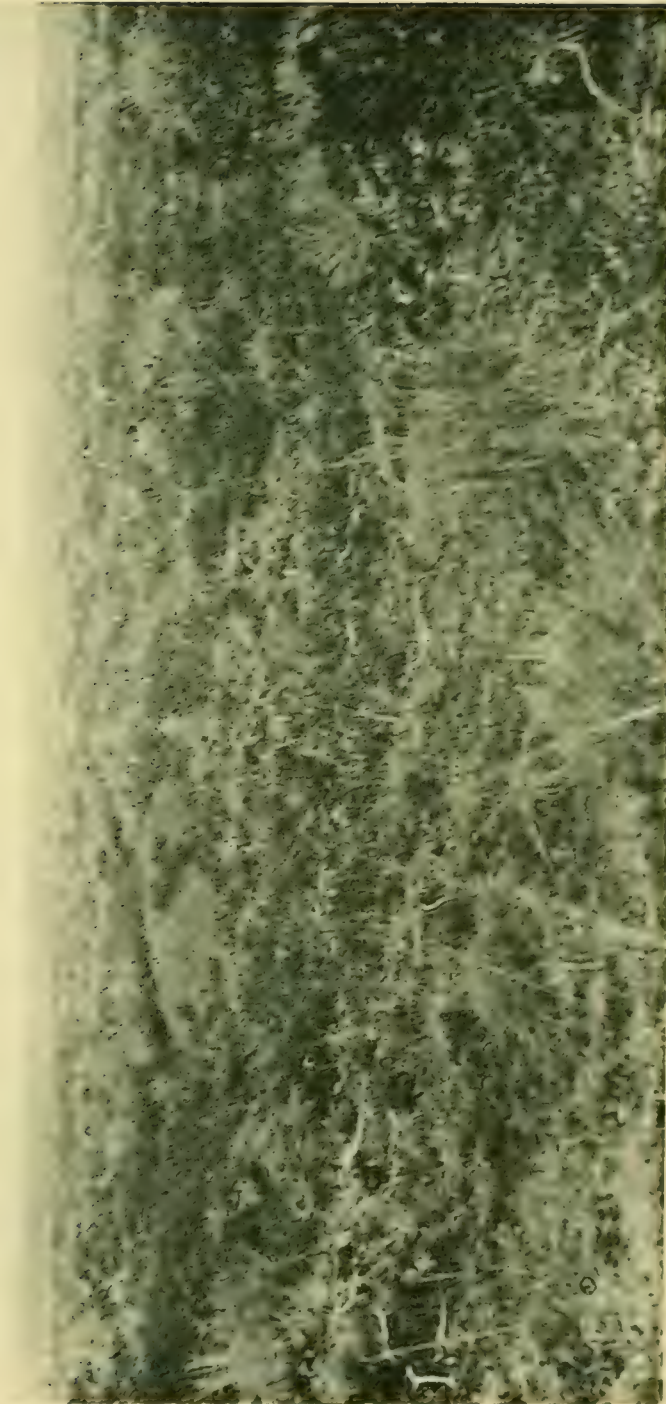
Darwin says of this bird :—"It is not uncommon on the mountains in the extreme southern parts of Tierra del Fuego. It frequents either in pairs or small coveys the zone of Alpine plants above the region of forest. It is not very wild, and lies very close on the bare ground."

With his concluding remark my experience is at variance, but agrees with what he says of the very nearly allied *A. gayi*, which, except in colouring, is practically the same bird. Of the latter he says :—"Only a little below the snow-line, on the Andes, behind Copiapo, which appears so entirely destitute of vegetation, that anyone would have thought that no living creature could have found subsistence, I saw a covey. Five birds rose together, and uttered noisy cries ; they flew like Grouse, and were very wild. I was told that this species never descends to the lower Cordillera."

"In their respective countries," Darwin concludes, "these two species occupy the place of Ptarmigan of the northern hemisphere."

In the Falkland Islands Capt. Abbott shot one example on the beach at Mare Harbour, in the beginning of October, 1859, and this was the only one he ever saw.

In Tierra del Fuego *Attagis* frequents high black moorland, where there is no other vegetation than the heatherlike crowberry, sparse tufts of wiry grass, and spongy hummocks of *Azorella*, with intervening patches of bare peaty earth. I found the droppings of these birds on the very summit of Nose Peak. Like Red Grouse in their wildest mountain haunts, they are not easily found without a knowledge of their habits and the sort of ground they frequent. In several hours' riding and quartering the ground, accompanied by a mounted Ona and a dog, I usually saw no more than two or three single birds, and occasionally a pair together. They occur at somewhat rare intervals, in commanding positions, where exceptionally large



PLATEAU ABOVE CHEENA CREEK
THE HAUNT OF ATTAGIS MALOUINUS

Azorella hummocks afford, as occasion requires, coign of vantage or shelter from the wind. Spots frequented by them are remarkable by their exactly Grouse-like droppings on the bare green surface of the larger hummocks.

They rise wild, and get away at a tremendous pace, making a great to-do, twisting and skimming, crowing excitedly "*Tu-whit, tu-whit, tu-whit,*" as long as they are on the wing. Each time they compass a flight of several hundred yards; sometimes topping a rise or going round a slope like a Grouse, leaving no clue to their line beyond. Usually, they alight on some commanding spot, where it is possible to mark them. It often requires manœuvring to get up to these birds a second time. If walked on direct, they usually fly before one comes within shot. The best way is, to work round in a lessening circle. When nearly approached in this manner, they manifest uneasiness—shuffling round and round and moving hither and thither—as Red Grouse sometimes do in similar circumstances.

It was spring-time when I was on the Cheena Creek Mountains; hence my finding them in pairs. At other times of the year, no doubt, their habits are otherwise. In the depths of winter they are said to pack in large numbers, and when the snow is deep are sometimes seen on the lowland flats. As far as my observations go, their food is exclusively the crowberry (*Empetrum nigrum*), varied with a small black seed the size of rape. The droppings exactly resemble those of Red Grouse, differing only in being smaller. They are compact massive birds, weighing about one pound. As compared with *Thinocorus*, they are more massive in proportion. The plumage not only resembles that of a Grouse in general colouring and markings, but the feathers are as soft and as easily disarranged, coming away freely when shot, and sticking up or lying down in patches. The contour of the head and bill is exceedingly Grouse-like; the skin is delicate; the flesh is red and somewhat similarly flavoured.

The Ona name is "*Toshti.*"

THINOCORUS ORBIGNYANUS (Lesson)

Thinocorus orbignyanus, Lesson, *Centurie Zoologique*, p. 137, pl. xlviii ♂, p. 139, pl. xlix ♀, 1830; *Sclater and Hudson, Argentine Orn.*, ii, p. 178, 1889.

Thinocorus ingæ, Cassin, *U.S. Expl. Exp.*, p. 288, 1858.

Thinocorus orbignianus, Sharpe, *Cat. Birds Brit. Mus.*, xxiv, p. 718, 1896.

Habitat.—Peru and Bolivia, to Tierra del Fuego.

♂ ♂ ♀, Useless Bay Settlement, 3rd Nov.; ♂, Rio McClelland Settlement, 4th Dec.: ♂, 30th Dec., 1904.

Iris—brown; bill—centre dark grey, remainder yellow; legs—yellow.

Hitherto, D'Orbigny's Seed Snipe seems not to have been recorded south of the Argentine Pampas.

It was not obtained anywhere by King, Darwin, Cunningham, Durnford, Coppinger, or the French Mission to Cape Horn. The United States Exploring Expedition obtained a single specimen at the Island of San Lorenzo, Peru.

The series in the British Museum are rufous above, where the Tierra del Fuego birds are almost black.

This is the commonest of the Seed Snipes, yet hardly plentiful. I found these birds in pairs, in open country, at the higher altitudes—more especially along tracks where there is short green grass. On the downs to the south of Useless Bay I once saw four together. In appearance and habits they very closely resemble *T. rumicivorus*, of which they appear to be only an enlarged form. They possess little instinct of self preservation, yet efface themselves in an unaccountable manner at times. They lie close, rise with a chuckle, fly erratically like *Caprimulgus* for one hundred yards or less, and alight anyhow, anywhere. On occasions, they soar high into the air like a Skylark, giving utterance to a full-toned bell-like “*Tu-wu*,” repeated an indefinite number of times, audible plainly for a quarter of a mile. In skinning them, I found the



CHEENA CREEK FLATS

skin of the neck so loose as almost to fall away of its own accord. The food of this bird is a thick succulent leaf with uneven edges and bars across it, the bright green juice of which irretrievably stains the feathers, whether voided from the bill or from the vent. The flesh is red and flavoured like that of a Grouse. Two males and one female weighed $4\frac{3}{4}$ ounces each; another male weighed 5 ounces.

The Ona name is "Kotel."

THINOCORUS RUMICIVORUS (Eschscholtz)

Thinocorus rumicivorus, *Eschscholtz, Zool. Atlas*, p. 2, pl. ii, 1829; *Gould and Darwin, Voy. "Beagle," Birds*, p. 117, 1841; *Durnford, Ibis*, p. 197, 1877, p. 403, 1878; *Sclater and Hudson, Argentine Orn.*, ii, p. 176, 1889; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 108, 1891; *Sharpe, Cat. Birds Brit. Mus.*, xxiv, p. 719, 1896.

Habitat.—Peru and Bolivia, to Tierra del Fuego.

♂ ♀, Cheena Creek Settlement, 11th Nov.; ♂, 16th Nov., 1904.

Iris—brown; bill—drab; legs and feet—yellow.

The Pigmy Seed Snipe was observed by Darwin as far south as Santa Cruz, on the inland plains of Patagonia, in lat. 50°. The French Mission to Cape Horn did not obtain it south of the mainland.

This bird is fairly common, occurring in pairs here and there. Its usual haunt is open ground, at low altitudes, in places where the grass is short and delicate. It rises somewhat like a Lark, with a twitter, flips away in erratic fashion for a short distance, perhaps thirty yards, and without any attempt at concealment resumes feeding or remains stationary, indifferent to one's presence. At Cheena Creek I put up a pair, about a mile from the settlement, when on my way into the mountains to shoot guanaco. As I particularly wanted the birds, I sent back my Ona guide for the '410. While he was away they remained

feeding unconcernedly within forty yards of me, with my horse stamping and sidling and blowing his nose with impatience, whilst I kept them in view.

Darwin describes this bird in such detail that it is clear he considered it exceptionally interesting. "It is found," he says, "wherever there are sterile plains, or open dry pasture land, in South America. It frequents the most desolate places, where scarcely another living creature can exist. It is found either in pairs or in small flocks of five or six; but near the Sierra Ventana I saw as many as thirty and forty together. Upon being approached they lie close, and then are very difficult to be distinguished from the ground; so that they often rise quite unexpectedly. When feeding they walk rather slowly, with their legs wide apart. They dust themselves in roads and sandy places. They frequent particular spots, and may be found there day after day. When a pair are together, if one is shot, the other seldom rises; for these birds, like Partridges, only take wing in a flock. In all these respects, in the muscular gizzard adapted for vegetable food, in the arched beak and fleshy nostrils, short legs and form of foot, the *Thinocorus* has a close affinity with Quails. But directly the bird is seen flying, one's opinion is changed; the long pointed wings, so different from those in the gallinaceous order, the high irregular flight, and plaintive cry uttered at the moment of rising, recall the idea of a Snipe. Occasionally they soar like Partridges when on the wing in a flock. . . . I opened the stomachs of many specimens at Maldonado, and found only vegetable matter, which consisted of chopped pieces of a thick rushy grass, and leaves of some plant, mixed with grains of quartz. The contents of the intestine and the dung were of a very bright green colour. At another season of the year, and further south, I found the craw of one full of small seeds and a single ant. Those which I shot were exceedingly fat, and had a strong offensive game odour; but they are said to be very good eating when cooked. Pointers will stand to them."

In the Province of Buenos Ayres, Durnford sometimes found *T. rumicivorus* in large flocks. "In their habits," he says, "they resemble the Rails and Sandpipers. Like the former they sometimes squat closely to the ground till almost trodden upon, and when put up run some distance before taking wing. They frequent very arid dry places, and also damp, marshy ground. In the air their long, pointed wings, and rapid erratic flight, added to their low whistling note, always suggests an affinity to the *Tringæ*. In size and weight I have found these birds to differ exceedingly, and this is not dependent on sex . . . Their food consists of fibrous vegetable matter and seeds."

In Central Patagonia, he observed them resident and abundant throughout his journey. "I took eggs at the end of October," he says, "and the young were running in the middle of November: but this species probably has two or more broods in the season; for I found chicks in March. The nest is a slight depression in the ground, sometimes lined with a few blades of grass; and before leaving it the old bird covers up the eggs with little pieces of stick. The eggs are pale stone colour, very thickly but finely speckled with light and dark chocolate markings; they have a polished appearance, and measure 1.3 by 0.8 inches."

In my experience, this bird feeds exclusively on vegetable matter.

The Onas know it as "*Kōk*."

Family LARIDÆ

STERNA HIRUNDINACEA (Lesson)

Sterna hirundinacea, Lesson, *Traité d'Ornithologie*, p. 621, 1831; Durnford, *Ibis*, p. 404, 1878; Sclater and Hudson, *Argentine Orn.*, ii, p. 196, 1889; Oustalet, *Miss. Sci. Cap Horn, Ois.*, p. 183, 1891; Saunders, *Cat. Birds Brit. Mus.*, xxv, p. 52, 1896; Oates, *Cat. Birds' Eggs Brit. Mus.*, i, p. 182, 1901.

Sterna cassinii, *Abbott, Ibis*, p. 166, 1861.

Habitat.—South America, on the east from Brazil, on the west from Peru to Cape Horn; the Falkland Islands; South Georgia Islands; South Shetland Islands.

♂, ♀, Useless Bay, 5th Jan., 1905.

Iris—black; bill and legs—bright scarlet.

The Swallow Tern is common on such parts of the coast as are favourable to its existence. I have never remarked it inland. It appears to prefer a rocky coast with here and there a spit of shingle to an open flat shore. Much of its time it rests on large rocks, surrounded by water. Its expanse of wing is so enormous in proportion to its size as to appear to burden its flight, entailing vastly unnecessary labour in moving the shortest possible distance. It would be hard to find a more delicately and beautifully coloured creature in its soft silver grey and snow-white plumage, with long sharp needle-like scarlet bill and tiny scarlet legs and feet. It is, however, anything but pleasant in its attitude to man—it is ever noisy and aggressive after the manner of its kind.

I found a small breeding colony on a spit of shingle on the southern shore of Useless Bay on January 10th. There were about one hundred birds, and numbers of nests placed close together in an area some fifty yards long by three or four yards broad parallel with and only a few feet above high tide mark. The usual number of eggs in each nest was two, laid in a slight depression in the bare shingle. I took about a dozen, representative of more than half a dozen distinct types. Unfortunately, with the exception of three, all proved too far incubated for preservation. No pair of eggs of all I saw exactly resembled any other pair. Not only did they differ vastly in shape, but in ground colour and markings. They were variously ovate, short ovate, clongate ovate, or ovate pyriform. In ground colour they ranged from pale greenish blue to ochre brown. The markings

were generally distributed over the entire surface, usually more numerous and dense at the larger end, occasionally forming a massive ring.

Capt. King and Darwin do not mention this Tern.

Capt. Abbott says it arrives in the Falkland Islands at the end of July, and breeds in communities on the sea beach, but also occasionally inland, in pairs, laying two, sometimes three eggs in each nest. It disappears about the end of March.

Durnford met with a very remarkable colony on Tombo Point, Central Patagonia, which he thus describes:—"I was prepared to see a considerable quantity of birds ; but the number that met my eyes fairly staggered me. The nests cover an area about 150 yards square. Allowing three nests and five eggs for every square yard (a very moderate computation, it being difficult to walk without treading on the eggs), we arrive at the extraordinary number of 67,000 nests, 135,000 birds, and 112,500 eggs ; and, wonderful as these figures may appear, I feel sure that I have rather understated than overstated the numbers. The nests were mere hollows in the fine gravel or shingle, and contained one, two, and sometimes three eggs. The latter generally have the appearance of the eggs of the Sandwich Tern, though of course smaller, and out of many hundreds I did not see two alike."

The three eggs I have represent about the extremes of variation in the colony in Useless Bay. A pair from the same nest are of elongate ovate form, with pale greenish-blue ground, and somewhat sparse markings over the entire surface, tending to become more numerous at the larger end. They measure 1.9 by 1.25 and 1.9 by 1.3 inches. The third egg is short ovate, with ochre-brown ground and a well defined massive ring round the larger end ; it measures 1.75 by 1.3 inches. Of the latter type of egg there was but one pair in the colony.

LARUS GLAUCODES (Meyen)

Larus ridibundus, *King (nec Linnæus) Zool. Journ.*, iv, p. 104, 1828.

Larus roseiventris, *Abbott, Ibis*, p. 166, 1861.

Xema cirrocephalum (*nec Vieillot*), *Gould and Darwin, Voy. "Beagle," Birds*, p. 142, 1841.

Larus glaucodes, *Meyen, Nova Acta, Kaiserliche Leopoldino-Carolinische Deutsche Akad. Nat.*, xvi, p. 115, pl. xxiv, 1834; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 181, 1891; *Saunders, Cat. Birds Brit. Mus.*, xxv, p. 203, 1896.

Habitat.—From Patagonia on the east and Chili on the west, to Cape Horn; the Falkland Islands.

♂, ♀, Sara Settlement, 14th Oct., 1904; juv. sk., Useless Bay, 8th Jan. 1905.

Iris—brown; bill, eyelids, and legs—dark crimson.

The Black-headed Gull is very nearly allied to *L. ridibundus* (Linnæus) of Great Britain, and to *L. maculipennis* (Lichtenstein) of South America. Mr. Howard Saunders distinguishes it from the latter in having less black and no bar whatever on any of the primaries: these having little more than black borders on the inner webs. It is also rather smaller.

Durnford records *L. maculipennis* from the Province of Buenos and Central Patagonia, but not this species.

This Gull is common along the sea coast and inland. Usually it is in company with *L. dominicanus*, but is not as numerous. What it lacks in numbers it makes up in being more noisy and aggressive to man. The discordant "A-a-a-a!" is a familiar and exasperating sound, whether on the open flats where one of their special functions appears to be to harrass man, or in settlements where they fight over offal and despoil the poultry.

Darwin says:—"In the plains of Buenos Ayres I saw some of these birds far inland, and I was told they bred in the marshes. Near Buenos Ayres this Gull, as well as the

L. dominicanus, sometimes attends the slaughter-houses to pick up bits of meat."

"It arrives in the Falkland Islands," Abbott says, "about July 25th, almost to a day, though occasional stragglers occur all the year round. It breeds in the beginning of December in separate communities on a point of the coast or adjacent islands. The nests are placed very thickly together, and each contains two, or sometimes three eggs."

In Tierra del Fuego, this bird is entirely a scavenger where sufficient means of subsistence obtain.

LARUS DOMINICANUS (Lichtenstein)

Blackbacked Gull, *Latham, Synopsis Birds*, iii, p. 372, 1785.

La gabiota mayor, *Azara, Pájaros, Paraguay y La Plata*, iii, p. 338, 1805.

Larus dominicanus, *Lichtenstein, Verzeich. Doubl. Zool. Mus. Berlin*, p. 82, 1823; *Gould and Darwin, Voy. "Beagle," Birds*, p. 142, 1841; *Gray and Mitchell, Genera Birds*, iii, p. 654, pl. clxxx, 1846; *Abbott, Ibis*, p. 165, 1861; *Durnford, Ibis*, p. 201, 1877, p. 405, 1878; *Sclater and Hudson, Argentine Orn.*, ii, p. 197, 1889; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 173, 1891; *Saunders, Cat. Birds Brit. Mus.*, xxv, p. 245, 1896.

Habitat.—South America, from Brazil and Peru, to Cape Horn; the Falkland Islands; South Georgian Islands; South Africa; the Crozet Islands; Kerguelen Island; New Zealand and islands to the southward.

♂, Useless Bay, 25th Jan., 1905.

Iris—old gold; eyelids—red; bill—dark yellow; lower mandible, lower portion—red; legs—greenish yellow.

The Dominican Gull nearly resembles *Larus marinus* (Linnæus) of Great Britain, but is smaller: its total length is about 23 inches, as against about 30 inches in *L. marinus*.

It has an extensive range, including some of the remotest islands in the southern hemisphere; but—according to Mr. Howard Saunders—it has not yet been recorded from Tristan da Cunha, Prince Edward Island, or Marion Island.

This is the commonest Gull met with, not only on the coast but inland. It is particularly aggressive to man, making for one at sight, following one overhead, and barking like a dog "*Wau-wau-wau*." At other times, it gives utterance to a long-drawn plaintive "*K-w-i-i-y-u*."

Large numbers congregate in the neighbourhood of settlements, and there spend their days fighting over offal. They breed on islands in fresh water lagoons, in places sometimes impossible of access by all ordinary methods.

Azara mentions the "voz muy desagradable" of this bird, and says "abunda infinito en el Rio de la Plata."

Darwin says :—"It abounds in flocks on the Pampas—sometimes even as much as fifty and sixty miles inland. Near Buenos Ayres, and at Bahia Blanca, it attends the slaughtering-houses, and feeds, together with the *Polybori* and *Cathartes*, on the garbage and offal."

Capt. Abbott says it is a common resident in the Falkland Islands, though many leave in winter. In the beginning of December they commence breeding in large flocks, laying two eggs near the beach, or on a small island, without much attempt at a nest. In September they appear in large numbers, many of them immature. During the winter he observed few, and these all old birds.

TUBINARES

Family PELECANOIDIDÆ

PELECANOIDES URINATRIX (Gmelin)

Procellaria urinatrix, Gmelin, *Systema Naturæ*, i, p. 560, 1788.

Procellaria berard, Quoy et Gaimard, *Zool. Voy. "Uranie,"* p. 135, pl. xxxvii, 1824.

Pelecanoides berardi, Gould and Darwin, *Voy. "Beagle," Birds*, p. 138, 1841; Abbott, *Ibis*, p. 164, 1861.

Pelecanoides urinatrix, *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 167, 1891; *Salvin, Cat. Birds Brit. Mus.*, xxv, p. 437, 1896.

Puffinaria urinatrix, *Gould, Birds of Australia*, vii, pl. lx, 1844.

Habitat.—The Seas of Australia, New Zealand, and Southern South America.

My experience of the Diving Petrel is limited to having seen a specimen blown ashore at the head of Useless Bay in September, which Mr. J. G. Cameron has in his possession. This I at first thought might be the Little Auk (*Alca alle*), without knowing whether that bird could occur in high southern latitudes.

Many expeditions record this Petrel from the region of Cape Horn, with varying experience as to its being rare or common.

The “*Uranie*” met with one example only, in the Falkland Islands, “’prise lorsqu’elle venoit se reposer à bord,” and noted “chose excessivement rare.”

Darwin found this bird common in the deep and quiet creeks and inland seas of Tierra del Fuego and on the west coast of Patagonia, as far north as the Chonos Archipelago. He saw but one in the open sea, and this was between Tierra del Fuego and the Falkland Islands. “It is a complete Auk in its habits,” he says, “although from its structure it must be classed with the Petrels. . . . Its affinity to the latter is clearly shown by the form of its beak and nostrils, length of foot, and even by the general colouring of its plumage. To the Auks it is related in the general form of its body, its short wings, shape of tail, and absence of hind toe to the foot. When seen from a distance, and undisturbed, it would almost certainly be mistaken, from its manner of swimming and frequent diving, for a Grebe. When approached in a boat, it generally dives to a distance, and on coming to the surface, with the same movement takes flight; having flown some way, it drops like a stone on the water, as if struck dead, and instantaneously dives again. No one seeing this bird for the first time, thus diving like a Grebe and flying in a straight line by the rapid movement of its short wings like

an Auk, would be willing to believe that it was a member of the family of Petrels; the greater number of which are eminently pelagic in their habits, do not dive, and whose flight is usually most graceful and continuous. I observed at Port Famine that these birds, in the evening, sometimes flew in straight lines from one part of the ground to another; but during the day they scarcely ever, I believe, take wing if undisturbed."

"The habit and economy of the Diving Petrel," says Gould, "are totally different from those of all the other members of the family, with the exception, of course, of the one or two other species belonging to the same genus. It possesses none of those great powers of flight common to the rest of the family, but has this loss amply compensated for by its powers of diving, which are so great that it is even said to fly under water. It thus gives chase to shrimps and other small crustaceans, fry of fish, etc., upon which it feeds; and in turn finds a destroying enemy in the barracoota, a ravenous fish, so-called by the colonists, and which is very common in the seas off the southern parts of Australia. Its flight is a curious fluttering motion, performed so close to the surface that it rarely rises enough to top the waves, but upon being met by them makes progress by a direct course through instead of over them. I observed this, or a nearly allied species about 20 degrees to the eastward of New Zealand, taking mollusks from the surface of the ocean, now and then dashing under water, rising again, skimming close to the surface, and then flying off in a straight line with a quick fluttering motion of the wings."

In the Falkland Islands Capt. Abbott found this Petrel uncommon, the only place he saw it being Berkeley Sound.

Family DIOMEDEIDÆ

DIOMEDEA EXULANS (Linnæus)

The Man of War Bird, *Albin, Nat. Hist. Birds*, iii, p. 76, 1740.

Diomedea exulans, *Linnæus, Systema Naturæ*, i, p. 214, 1766; *Gould*,

Birds of Australia, vii, pl. xxxviii, 1848; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 157, 1891; *Salvin, Cat. Birds Brit. Mus.*, xxv, p. 441, 1896.

Habitat.—The Southern Ocean.

There is a Wandering Albatross, found dead inland, roughly stuffed but in good condition, in Mr. A. A. Cameron's house at Useless Bay Settlement.

On my voyage in the "Milton" I remarked this Albatross on August 2nd, in lat. 22°: 00' S; long. 40°: 25' W—the furthest north I ever remember having seen it on many Atlantic voyages.

How poetical is this bird's name, yet how characteristic of its existence; its home the ocean at its greatest breadths and depths, from the tropics, throughout the roaring forties, to the remote islands in the Antarctic; wandering at will over the face of the waters;—that

"Glorious mirror, where the Almighty form
Glasses itself in tempests; in all time,
Calm or convulsed—in breeze, or gale, or storm,
Icing the pole, or in the torrid clime
Dark-heaving;—boundless, endless, and sublime—
The image of Eternity—the throne
Of the Invisible"!

All who sail the seas and are the least observant must be familiar with the Wandering Albatross; but, in a modern mail steamer, amidst a crowd of passengers, awninged and screened from sky and sea, one does not realize it as in a sailing ship, or in an ocean tramp such as "goes a long way in a long time."

"Wouldst thou . . .
Learn the secret of the sea,
Only those that brave its dangers
Comprehend its mystery."

Then, at one's leisure, in complete quiet amongst deep-sea men, one may note what a feature it is in a sea-scape limited only by the curve of the earth, and the impression remains on the mind for ever. No other creature is as

conspicuous. Storm Petrels are small, and skim the waves: whales are comparatively seldom seen, and do not show in a heavy sea. Blow as it may, let the seas be what they will, look out from a ship, rolling and pitching, straining and labouring, wrestling with wind and wave for every moment of existence, there is the Albatross perfectly at home. Never does one tire of watching its ceaseless energy, wheeling in circles a mile or more wide, now descending to the waves and disappearing in their trough, now coming away with a magnificent sweep against the sky.

As one of the wonders of the ocean, this Albatross attracted the notice of Sir Richard Hawkins as early as 1594. He relates how in a storm off the Patagonian coast "certaine great Fowles as big as Swannes, soared about us, and the winde calming, settled themselues in the Sea, and fed vpon the sweepings of our ship; which I perceiving, and desirous to see of them, because they seemed farre greater than in truth they were, I caused a Hook and Line to be brought me; and with a piece of a Pilchard, baited the Hooke, and a foot from it, tied a piece of Corke, that it might not sinke deepe, and threw it into the Sea, which, our ship driuing with the Sea, in a little time was a good space from vs, and one of the Fowles beeng hungry, presently seized vpon it, and the Hooke in his vpper beake. It is like to a Faulcons bill, but that the point is moore crooked, in that manner, as by no meanes hee could cleere himselfe, except that the Line brake, or the Hooke righted. By the same manner of fishing, we caught so many of them as refreshed and recreated all my people for that day. Their bodies were great, but of little flesh and tender, in taste answerable to the food whereon they feed. They were of two colours, some white, some grey; and from the poynt of one wing to the poynt of the other, both stretched out, was about two fathomes."

The size and weight of the Wandering Albatross are points of much divergence of opinion.

On his Voyage to the South Pole, Weddell says :—" A full grown Albatross sometimes measures 16 or 17 feet from the tip of one wing to the tip of the other when expanded ; but more commonly they average about 12 feet. These birds are so abundantly covered with feathers that when plucked, they appear not above one half the original size, and our astonishment at their apparent magnitude immediately vanishes. I have found them when cleaned to weigh from 12 to 25 pounds. Their feet are webbed and remarkably large, so that when the water is smooth they can walk on the surface with hardly any assistance from their wings, and the noise of their tread is heard at a considerable distance. Their eggs weigh generally one pound and three quarters."

According to Gould, the average weight is 17 pounds, and the measurement from wing-tip to wing-tip 10 feet 1 inch. He mentions, however, that Dr. McCormick met with examples weighing as much as 20 pounds, and measuring 12 feet.

The breeding habits of this Albatross are admirably described by Earle, from Tristan d'Acunha, in 1824. After accomplishing the rough and difficult ascent, he found an extended plain of several miles' expanse, terminating in a peak composed of dark grey lava, bare, and frightful to behold.

" Here," he says, " a death-like stillness prevailed, whilst the air was bitterly cold."

" The prospect was altogether very sublime, and filled the mind with awe ! "

" On the one side, the boundless horizon, heaped up with clouds of silvery brightness, contrasted with some of darker hue, enveloping us in their vapour, and, passing rapidly away, gave us only casual glances of the landscape ; and, on the other hand, the sterile and cindery peak, with its venerable head partly capped with clouds, partly revealing great patches of red cinders, or lava, intermingled with the black rock, produced a most extraordinary and dismal effect. It seemed as though it was still actually burning, to heighten the sublimity of the scene."

"The huge Albatross appeared here to dread no interloper or enemy; for their young were on the ground completely uncovered, and the old ones were stalking around them. They lay but one egg, on the ground, where they form a kind of nest by scraping the earth round it. As we approached them they clapped their beaks with a very quick motion, which made a great noise. This, and throwing up the contents of the stomach, are the only means of offence and defence they seem to possess. These birds are very helpless on the land, the great length of their wings precluding them from rising up into the air, unless they can get to a steep declivity. On the level ground they were completely at our mercy."

"In Auckland and Campbell Islands," says Dr. McCormick, "the grass-covered declivities of the hills, above the thickets of wood, are the spots selected by the Albatros for constructing its nest, which consists of a mound of earth intermingled with withered grass and leaves matted together, 18 in. in height, 6 ft. in circumference at the base, and 27 in. in diameter at the top, in which only one egg is usually deposited; for, after an examination of more than a hundred nests, I met with two eggs in the same nest in one solitary instance only. The eggs I had an opportunity of weighing varied in weight from $14\frac{1}{2}$ to 19 ozs., thirty specimens giving an average weight of 17 ozs.; colour, white."

"The Albatros, during the period of incubation, is frequently found asleep, with its head under its wing. On the approach of an intruder, it resolutely defends its egg, refusing to quit the nest until forced off, when it slowly waddles away in an awkward manner to a short distance, without attempting to take wing. Its greatest enemy is a fierce species of *Lestris*, always on the watch for the Albatros quitting its nest, when this rapacious pirate instantly pounces down and devours the egg. So well is the poor bird aware of the propensity of its foe, that it snaps the mandibles of its beak violently together whenever it observes the *Lestris* flying overhead."



THE SEA-SHORE, NORTH-WEST OF NOSE PEAK
LOW TIDE

STEGANOPODES

Family PHALACROCORACIDÆ

PHALACROCORAX BRASILIANUS (Gmelin)

Le Puffin du Brésil, *Brisson, Ornithologie*, vi, p. 138, 1760.

Nigaud, *Pernety, Voy. Iles Malouines*, ii, p. 572, 1769.

Fou brun de Cayenne, *Buffon, Hist. Nat. Ois.*, ix, pl. dcccclxxiv, 1784.

Procellaria brasiliana, *Gmelin, Systema Naturæ*, i, p. 564, 1788.

Zaramagullon negro, *Azara, Pájaros, Paraguay y La Plata*, iii, pp. 393, 395, 1805.

Phalacrocorax brasilianus, *Cassin, U.S. Astron. Exp.*, p. 205, pl. xxviii, 1855; *Durnford, Ibis*, pp. 40, 188, 1877, p. 398, 1878; *Sclater and Hudson, Argentine Orn.*, ii, p. 91, 1889.

Phalacrocorax brasiliensis, *Oustalet, Mis. Sci. Cap Horn, Ois.*, p. 142, 1891.

Phalacrocorax vigua, *Grant, Cat. Birds Brit. Mus.*, xxvi, p. 378, 1898.

Habitat.—The coasts of Texas, Central America, and South America; the Falkland Islands.

Pernety mentions three species of Cormorants in the Falkland Islands—"les uns absolument noirs." The name Nigaud, he says, was given to these birds because "ils se laissoient tuer à coups de pierre; & qu'ils ne s'envoloient que quand la pierre les avoit atteints, sans les tues. Ils se posent en troupes quelquefois de cent & davantage sur les rochers du bord de la mer. Lorsque nous allions à terre dans le canot, il en passoit des bandes de deux ou trois cents à huit ou dix pieds seulement au dessus de nos têtes."

Azara thus quaintly and faithfully describes this Cormorant's habits:—"Su postura ordinaria bastante derecha, con el cuello elevado, mirando con despejo, esquivez y desconfianza. Vuelan con bastante violencia y rectitud; y aunque á veces se elevan bastante, lo comun es volar pegados á las aguas. Se posan en las playas limpias y mejor en los raygones, piedras, y árboles, y

duermen en estos. Habitan los rios y lagunas limpias y grandes, nadando sin sacar otra cosa afuera del agua que la cabeza y la mitad del cuello ; pero los ocultan con prontitud quando temen. Subsisten del pescado, persiguiéndolo con mucha ligereza largos trechos baxo de agua."

The Black Cormorant is common along the rocky coast in Whiteside Channel to the west of Maldonado Point, but I do not remember having seen it far up Useless Bay.

"Every evening," says Durnford in Central Patagonia, "large flocks ascend the R. Chupat for many miles, flying in from the sea, and fish in the river during the night."

PHALACROCORAX MAGELLANICUS (Gmelin)

Magellanic Shag, *Latham, Synopsis Birds*, iii, p. 604, 1785.

Pelecanus magellanicus, *Gmelin, Systema Naturæ*, i, p. 576, 1788.

Cormoran magellanique, *Hombroux et Jacquinot, Voy. "Astrolabe" et "Zélée," Atl. Ois.*, pl. xxxi, 1853.

Phalacrocorax magellanicus, *Abbott, Ibis*, p. 167, 1861; *Oustalet, Mis. Sci. Cap Horn, Ois.*, p. 150, 1891; *Grant, Cat. Birds Brit. Mus.*, xxvi, p. 388, 1895.

Habitat.—Chili, Patagonia, and Tierra del Fuego; the Falkland Islands.

The Common Cormorant is fairly plentiful on the southern shore of Useless Bay, in such parts as are rocky. I used to come across these birds lying dead on the beach, from what cause I do not know : one such specimen yielded me a good series of a necrophagous beetle (*Silpha biguttula*).

All expeditions seem to record this Cormorant, with the exception of Darwin.

Abbott says of it in the Falkland Island :—"It is very common along the coasts all the year round. It breeds on the cliffs in communities, making its nests of mud and seaweed on the ledges of the rocks, and laying three eggs, which do not differ from those of the King-Shag (*P. carunculatus*) in appearance. It appears to me probable that the thick limy coating which



W. H. B. 10

PODICEPS AMERICANUS

covers the eggs of this group of birds is given them in order to strengthen the shell. Shags, when disturbed from their nests, frequently even with this additional protection, break their eggs with their feet, as I have myself witnessed on more occasions than one."

PYGOPODES

Family PODICIPEDIDÆ

PODICEPS AMERICANUS (Garnot)

Podiceps americanus, *Lesson et Garnot, Voy. "Coquille," Zool.*, i, p. 599, 1826; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 235, 1891.

Podiceps chilensis, *Gould and Darwin, Voy. "Beagle," Birds*, p. 137, 1841.

Podiceps rollandi (*nec Quoy et Gaimard*), *Durnford, Ibis*, p. 45, 1877
Sclater and Hudson, Argentine Orn., ii, p. 525, 1889.

Podicipes americanus, *Grant, Cat. Birds Brit. Mus.*, xxvi, p. 524, 1898.

Habitat.—Peru and Bolivia, to Tierra del Fuego.

♀, Useless Bay Settlement, 2nd Sept.; ♂ San Sebastian Settlement, 26th Sept.; ♂, ♀, Useless Bay Settlement, 6th Nov., 1904.

Iris—crimson; bill—black; legs and feet—dark grey, inclining to green.

The Little Grebe—according to Grant—is chiefly distinguishable from the nearly-allied *P. rollandi* of the Falkland Islands by its much smaller size. The total length of this species is about 11.5 inches, as against about 14 inches in *P. rollandi*.

The British Museum possesses specimens from Lake Titicaca, in Peru.

Darwin says of this Grebe:—"Capt. P. King brought home specimens from the salt water channels in Tierra del Fuego, where it is excessively numerous. It often makes a very melancholy cry, which suits the gloomy climate of those desolate shores."

In my experience this bird is a fresh water form. I have

never remarked it in the sea. Nowhere is it numerous. It occurs in pairs or little communities of from three to five individuals, which is the greatest number I have seen together. It frequents streams and permanent fresh water lagoons.

It is a weird-looking restless creature, cunning in some respects, yet withal curious. It swims round and round nervously, and dives from time to time when observed by man.

Many cartridges can be expended in firing at these birds. Mr. J. G. Cameron and myself fired about thirty shots at a pair on the water between us one afternoon with no result. Ultimately, I secured both birds with a single 12-bore cartridge from behind a blind of drift grass hastily put up on the margin of the lagoon.

Durnford found this Grebe common in almost every pool and ditch in the Chupat Valley.

Fresh water crustacea were in the stomachs of all specimens examined by me.

ÆCHMOPHORUS MAJOR (Boddaert)

Le Grand Grebe, *Buffon, Hist. Nat. Ois.*, viii, p. 242, 1781 ; *Id.*, *Hist. Nat. Ois.*, ix, pl. ccciv, 1784.

Colymbus major, *Boddaert, Table Planches Enluminées*, p. 24, 1783.

Æchmophorus major, *Durnford, Ibis*, p. 203, 1877, p. 405, 1878 ; *Sclater and Hudson, Argentine Orn.*, ii, p. 202, 1889 ; *Grant, Cat. Birds Brit. Mus.*, xxvi, p. 549, 1898.

Podiceps major, *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 232, 1891.

Habitat.—Brazil and Peru, to Tierra del Fuego.

♀, Useless Bay, 27th Dec., 1904.

Iris—magenta ; bill and legs—dark grey.

The Great Grebe frequents the sea, and fresh water lagoons sometimes nearly twenty miles inland. I have occasionally seen these birds in lakes in the depths of the forest. How they arrive there, and what they live on, I do not know. They are not plentiful : they occur in pairs, or sometimes three together. They are remarkable for extreme curiosity. I have often seen

them far out on the water, and they have come in to observe me—swimming in close to the shore, moving round uneasily, and diving from time to time. This specimen was one of a pair which behaved in this way : they came in shore to observe me, and enabled me to shoot one.

In Central Patagonia, Durnford says of this Grebe:—"Resident. Observed constantly in a large brackish lake in the Chupat Valley in September, and subsequently seen in lagoons in the valleys of the Sengel and Sengelen, and in Lake Colguape." In the Province of Buenos Ayres he found these birds "common, except during spring and summer. They are found both singly and in small parties."

I was under the impression that a bird of this sort, when frequenting the sea, would feed on fish.

In the stomach of this specimen I found a compact mass of feathers and fragments of skin, apparently of some water bird or water birds.

SPHENISCI

Family SPHENISCIDÆ

SPHENISCUS MAGELLANICUS (Forster)

Pinguin, *Pernety, Voy. Iles Malouines*, ii, p. 565, pl. vii, 1769.

Aptenodytes magellanica, *Forster, Commentationes Societatis Regiæ Gottingensis*, iii, p. 143, pl. v, 1781.

Aptenodytes demersa (*nec Linnæus*), *Abbott, Ibis*, p. 336, 1860.

Spheniscus magellanicus, *Cunningham, Nat. Hist. Strait Magellan*, p. 271, 1871; *Sclater and Salvin, Zool. Voy. "Challenger,"* ii, p. 125, pl. xxviii, 1880; *Sclater and Hudson, Argentine Orn.*, ii, p. 206, 1889; *Oustalet, Miss. Sci. Cap Horn, Ois.*, p. 243, 1891; *Grant, Cat. Birds Brit. Mus.*, xxvi, p. 651, 1898.

Habitat.—Patagonia and Southern Chili, to Cape Horn; the Falkland Islands; South Georgia.

The Jackass Penguin has impressed all voyagers, in all time, as a chief feature of these regions; and has furnished

them largely—if not wholly on occasion—with the means of subsistence.

It is everywhere common in these waters; but I was never so fortunate as to see with my own eyes one of their wonderful colonies.

Forster, who accompanied Cook in the “Resolution” in 1774, was the first to give this Penguin its scientific name. Of its habits he says:—“In Insula Novi Anni, Insulæ Statuum vicina, multa millia hujus speciei vidimus e mari escendere et loca altiora insulæ petere, ubi satura e piscatu marino, quem gregatim instituunt, inter cespites dactylidis glomeratæ victitant, dormiunt, et nidulantur post Pelecanos et Diomedæas. Vox rauca, clangens, et etiam crotali instar crepitans, fere asina. Homines et phocas non metuunt, eisque vix de via decedunt; et si evadere homines nequeunt, tum caput horsum vorsum in utrumque latus, quasi mirabundæ, torquent et subito vehementissimo morsu pedes appropinquantium appetunt. Aliquot centum a nautis nostris fustibus necata, in navem avecta, excoriataque, omnibus elixa assataque in cibum cessere, nil minus quam ingratum.”

Cook himself mentions meeting with “prodigious numbers.” He adds:—“I cannot say they are good eating. I have indeed made several good meals of them; but it was for want of better victuals.”

As early as 1578, Sir Francis Drake, at the time of his naming Elizabeth Island, mentions finding on two smaller islands near it, one of which was subsequently named Penguin Island and is now known as Santa Magdalena, “great store of strange birds which could not flie at all, nor yet runne so fast as that they could escape us with their liues; in body they are less than a Goose, and bigger than a Mallard, short and thicke sett together, hauing no feathers, but instead thereof a certaine hard and matted downe; their beakes are not much vnlike the bills of Crowes, they lodge and breed vpon the land, where making earthes, as the Conies doe, in the ground, they lay their egges and bring up their young; their feeding and provision to live on

is in the sea, where they swimm in such sort, as nature may seeme to have granted them no small prerogatiue in swiftnesse, both to prey vpon others, and themselues to escape from any others that seeke to cease vpon them ; and such was the infinite resort of these birds to these Ilands, that in the space of 1 day we killed no lesse than 3000."

At "Penguin Island," near Port Desire, in 1587, Thomas Cavendish "powdred three tunnes of Penguins for the victualing of his shippe."

Sir Richard Hawkins visited Penguin Island in the Strait of Magellan in 1594, and his description of its inhabitants is throughout full of original observations and quaint methods of expression.

"The Pengwin," he says, "is in all proportion like a Goose, and hath no feathers, but a certaine downe vpon all parts of his bodie ; and therefore cannot flee, but auayleth himselfe in all occasions with his feet, running as fast as most men. He liueth in the Sea, and on the Land feedeth on fish in the Sea, and as a Goose on the shore vpon grasse. They harbour themselues vnder the ground in Burrowes, as the Conies ; and in them hatch their young. All parts of the Iland where they haunted were vndermined, saue onely one Valley which (it seemeth) they reserued for their food ; for it was as greene as any Medow in the moneth of Aprill, with a most fine short grasse. The flesh of these Pengwins is much of the sauour of a certaine Fowle taken in the Ilands of Lundey and Silley, which we call Puffins, by the taste it is easily discerned that they feed on fish. They are very fat, and in dressing must be flead as the Byter ; they are reasonable meate rosted, baked, or sodden ; but best rosted. We salted some doozen or sixteene Hogsheads, which serued vs (whilest they lasted) instead of powdred Beefe. The hunting of them (as wee may well terme it) was a great recreation to my company and worth the sight, for, in determining to catch them, necessarily was required good store of people, euery one with a cudgell in his hand, to compasse them round about, to bring them, as it were, into a Ring ; if they chanced to breake out,

then was the sport, for the ground beeing vndermined, at vnawares it failed, and as they ranne after them, one fell here, another there, another offering to strike at one, lifting vp his hand, sunke vp to the arme-pits in the earth, another leaping to auoid one hole, fell into another. And after the first slaughter, in seeing vs on the shoare, they shunned vs, and procured to recouer the Sea: yea many times seeing themselues persecuted they would tumble down from such high Rockes and Mountaines, as it seemed impossible to escape with life. Yet as soone as they came to the Beach, presently we should see them runne into the Sea, as though they had no hurt. Where one goeth, the other followeth, like sheepe after the Bel-weather: but in getting them once within the Ring close together, few escaped, saue such as by chance hid themselues in the borrowes, and ordinarily there was no Droue which yeelded vs not a thousand, and more: the manner of killing them which the Hunters vsed, beeing in a cluster together, was with their cudgels to knocke them on the head, for though a man gaue them many blowes on the body they dyed not: Besides the flesh bruized is not good to keepe. The massacre ended, presently they cut off their heads, that they might bleed well: such as we determined to keepe for store, we saued in this manner. First, wee split them, and then washed them well in Sea-water, then salted them, hauing laine some sixe houres in Salt, we put them in presse eight houres, and the bloud being soaked out, wee salted them againe in our other caske, as is the custom to salt Beefe, after this manner they continued good some two moneths, and serued vs in steed of Beefe."

At Penguin Island, near Port Desire, in 1670, Sir John Narborough says:—"I took into my Boat three hundred Penguins, in less than half an hour, and could have taken three thousand in the time, if my Boat would have carried 'em; for 'tis but driving 'em in Flocks to the Shore, by the Boat side, when two or three men knock them on the head with short Truncheons, and the rest heave them into the Boat."

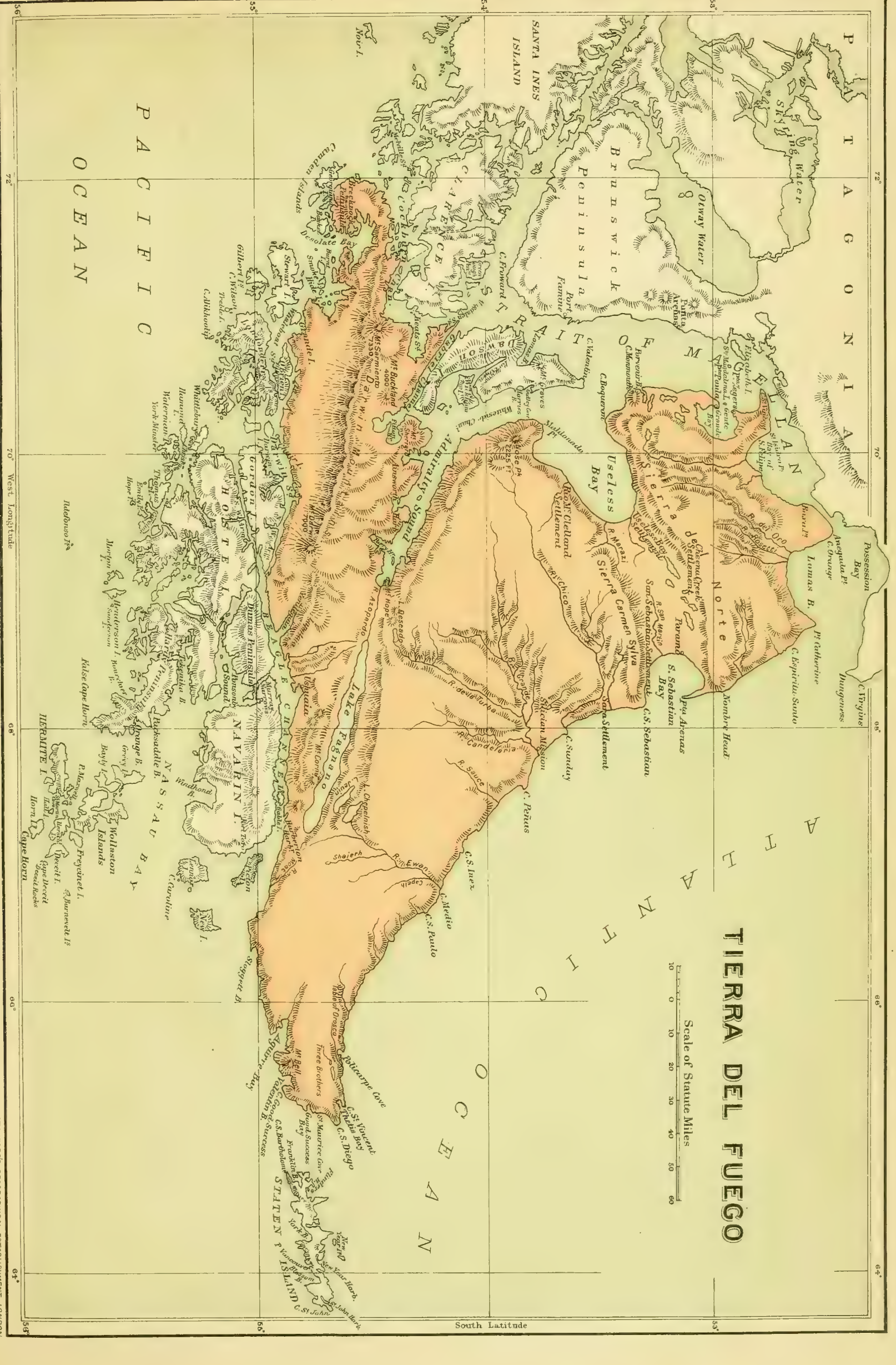
Pernety's observations on this Penguin in the Falkland Islands in 1764 are exceedingly droll :—"Un animal singulier," he remarks. . . . "Quand il crie, on diroit un âne qui brâit. Son maintien & sa démarche n'imitent pas ceux des oiseaux. Il marche debout, la tête & le corps droits comme l'homme. Ils se logent dans glajeux, comme les Loups marins, & se terrent dans les tannieres, comme les Renards."

On the "Nassau" Survey, Dr. Cunningham thus humorously describes a colony of these birds on Penguin Island in the Strait of Magellan :—"On climbing to the summit of one of the high banks we beheld a company of Penguins (*Spheniscus magellanicus*), which, after standing erect and staring at us in a stupid manner for a few moments, shuffled off, their little wings hanging limp at their sides, and their dark grey and white colouring, and reeling movements, suggesting a drunk and disorderly funeral procession. When hard pressed they abandoned the erect position, and crouching down on all fours, if I may be permitted the expression, ran along like rabbits at a very rapid rate, using their wings as fore-legs, till they gained their burrows, fairly ensconced in which they faced their pursuers, and, slowly turning about their heads from side to side, barked and brayed in the most ridiculous manner, offering a stout resistance to being captured by biting most viciously with their strong bills. Whilst contemplating one individual in its den, I was suddenly startled by a loud "Ho-ho-ho-ho-ho" close to me, and turning round perceived another bird, which had boldly walked out of a neighbouring burrow, and was thus addressing me. I succeeded at last, though with much difficulty, in raking an old bird out of its hole with the crook of a walking stick, and also obtained two young ones in their down."

Capt. Fitzroy contributes the following note, on the occasion of his visit to Noir Island in the "Beagle," in 1830 :—"Multitudes of Penguins were swarming together in some parts of the island, among the bushes and 'tussac' near the shore, having gone there for the purposes of moulting and

rearing their young. They were very valiant in self-defence, and ran open-mouthed, by dozens, at any one who invaded their territory, little knowing how soon a stick could scatter them on the ground. The young were good eating, but the others proved to be black and tough, when cooked. The manner in which they feed their young is curious, and rather amusing. The old bird gets on a little eminence, and makes a great noise (between quacking and braying), holding its head up in the air, as if it were haranguing the penguinnery, while the young one stands close to it, but a little lower. The old bird having continued its clatter for about a minute, puts its head down, and opens its mouth widely, into which the young one thrusts its head, and then appears to suck from the throat of its mother for a minute or two, after which the clatter is repeated, and the young one is again fed; this continues for about ten minutes. I observed some which were moulting make the same noise, and then apparently swallow what they thus furnished themselves with; so in this way I suppose they are furnished with subsistence during the time they cannot seek it in the water."

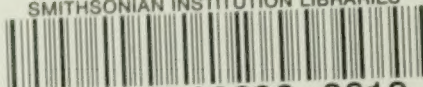
Of the Jackass in the Falkland Islands, Abbott says it is the first of its kind to arrive for breeding, and commences laying, almost to a day, on the 7th of October. Some few, however, are found on the shores of these islands the whole year, which is not the case with any other Penguin. "It has been asserted," he adds, "that these birds crawl on all fours to their breeding places. This is not the case; they walk upright, and it is only when they are frightened and hard-pressed, that they lose their balance, fall forward, and then make use of their fins and legs to get out of harm's way."



15
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